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Assistant Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

Transmitted herewith for filing is the patent application of:

Inventors: Thierry Sornasse, Benjamin Graeme Cocks, and Bharati Sanjawala

Title: **GENES REGULATED BY HUMAN CYTOKINES**

Enclosed are:

X Return postcard;
X 34 Pages of Specification (1-34);
X 2 Pages of Claims (35-36);
X 1 Page of Abstract (37);
X 14 Pages of Tables (Table 1 (4 pages); Table 2 (1 page); Table 3 (1 page); Table 4 (8 pages);
X 200 Pages of Sequence Listing (Sequence Nos. 1-516);
X 4 Pages - **Unexecuted** Declaration and Power of Attorney; and
X 1 Page of Sequence Listing Statement and one (1) Computer-Readable Diskette.

Fee Calculation - The fee has been calculated as follows:

CLAIMS AS FILED (fees computed under § 1.16)

Claims	Number Filed	Minus	Number Extra	Other Than Small Entity Rate	Fee	Basic Fee $760.00
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The Commissioner is hereby authorized to charge Incyte Pharmaceuticals, Inc. Deposit Account No. **09-0108** in the amount of **$760.00**. The Commissioner is hereby authorized to charge any additional fees required under 37 C.F.R. § 1.16 and 1.17, or credit any overpayment to Incyte Pharmaceuticals, Inc. Deposit Account No. **09-0108. A duplicate of this sheet is enclosed.**

Respectfully submitted,

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GENES REGULATED BY HUMAN CYTOKINES

FIELD OF THE INVENTION

The present invention relates to a a plurality of polynucleotides which may be used in detecting genes modulated in response to human cytokines. In particular, the present invention provides for the use of these polynucleotides in the diagnosis of conditions, disorders, and diseases associated with the immune system and immune response.

BACKGROUND OF THE INVENTION

Mammalian peripheral blood comprises cells of the erythroid, myeloid, and lymphoid lineages. (See, e.g., Rapaport (1987) Introduction to Hematology, Lipincott, Philadelphia PA; Jandi (1987) Blood: Textbook of Immunology, Little, Brown and Co., Boston MA; and Paul (1998) Fundamental Immunology (4th ed.), Raven Press, New York NY). Each of these lineages are derived from a pluripotent stem cell which, upon exposure to various molecules and other types of cells, differentiate into effector cells which migrate into the blood and other organs. These cells include red blood cells and platelets (erythroid), macrophages and granulocytes (myeloid), and T and B lymphocytes (lymphoid). The latter two groups of cells mediate immune responses to pathogens such as bacteria, parasites, and viruses.

Functional interaction of the cell types involved in immune responses involves transfer of signals via soluble messenger molecules known as cytokines. Both hematopoietic cells and non-hematopoietic cells produce cytokines which stimulate the activation, differentiation and proliferation of T cells, B cells, macrophages, and granulocytes during an active immune response. Cytokines bind to specific receptors expressed on cellular membranes and transduce a signal through the cell. Depending on the type of cytokine and the cell to which it binds, this signal initiates activation, differentiation, growth, and/or apoptosis (Aggarwal and Gutterman (1991) Human Cytokines: Handbook for Basic and Clinical Research, Blackwell, Oxford, UK).

T cells, which respond to and produce a variety of cytokines, are divided into two major groups, $CD4^+$ T helper (Th) cells, and $CD8^+$ cytotoxic T lymphocytes (CTL). Immune responses are primarily regulated by $CD4^+$ Th cells which fall into two subclasses based on the kinds of cytokines they secrete. Th1 cells secrete primarily IL-2 and IFN-γ, regulate the responses of CTLs, B cells, and macrophages, and orchestrate the removal of intracellular pathogens. In contrast, Th2 cells secrete primarily IL-4 and IL-10 and promote the development of certain antibody responses such as IgG1, IgA, and IgE, an excess of the latter triggering allergic responses. In addition, Th2 cells remove extracellular pathogens, which include various

bacteria and parasites (Morel and Oriss (1998) Crit. Rev. Immunol. 18:275-303).

Further studies have shown that the Th1 cytokine response predominates in organ-specific autoimmune disorders such as insulin-dependent diabetes mellitus (IDDM), multiple sclerosis (MS), rheumatoid arthritis (RA), and Crohn's disease. A Th1 response also predominates in acute allograft rejection, eradication of tumors, and unexplained recurrent abortions. Th2 responses predominate in allergy and other atopic disorders, transplantation tolerance, chronic graft versus host disease (GVHD), and systemic autoimmune disease such as systemic lupus erythmatosus (Romangnani et al. (1997) Int. Arch. Allergy Immunol. 113:153-156).

Genes affected by these molecules may reasonably be expected to be markers of immune cell development, function, and activity. During immune responses, immune cells make a plethora of different cytokines that affect cellular functions. Until now, in vitro studies have focused on the effects of one or two cytokines on gene expression, but have not recreated the complex environment of multiple signals that occur in vivo by studying the effect of multiple cytokines simultaneously. This approach would provide a high throughput method of screening for a cytokine-related disease, assessing the efficacy of treatment for various disorders, conditions, and diseases, and providing information regarding novel genes up- or down-regulated by a complex mixture of cytokines that skew toward a particular immune response.

The present invention provides a method of high-throughput screening using a plurality of probes and purified polynucleotides in a diagnostic context as markers of various immune conditions, diseases, and disorders.

SUMMARY OF THE INVENTION

The present invention provides a composition comprising a plurality of polynucleotides wherein each polynucleotides comprises at least a fragment of a gene of SEQ ID NOs:1-516 as presented in the Sequence Listing. These polynucleotides are used to assess gene expression which is modulated by cytokines and is associated with an immune response or an immune system disorder. The invention also provides purified polynucleotides wherein each of the polynucleotides comprises at least a fragment of a gene selected from SEQ ID NOs:1-243 or a complement thereof whose expression is modulated by cytokines and is associated with an immune response or an immune system disorder. In one embodiment, each polynucleotide comprises at least a fragment of a gene selected from SEQ ID NOs:1-172 whose transcript level in a sample is altered in response to both pro-inflammatory cytokines such as IL-1β, IL-6, interferon (IFN)-γ, tumor necrosis factor (TNF)-α, IL-18, IL-12, IL-2, and IL-8, and anti-inflammatory cytokines such as IL-4, IL-10, IL-13, transforming growth factor (TGF)-β, IL-7, IL-3, IL-5, granulocyte-macrophage colony-stimulating factor (GM-CSF), granulocyte colony stimulating factor (G-CSF), leukemia inhibitory factor (LIF), and

leptin. In another embodiment, each polynucleotide comprises at least a fragment of a gene selected from SEQ ID NOs:173-218 whose transcript level in a sample is altered in response to pro-inflammatory cytokines. In another embodiment, each polynucleotide comprises at least a fragment of a gene selected from SEQ ID NOs:219-243 whose transcript level in a sample is altered in response to anti-inflammatory cytokines. In one aspect, the polynucleotides of the composition are immobilized on a substrate.

The invention also provides a high throughput method for detecting a polynucleotide in a sample, the method comprising hybridizing the polynucleotide composition with at least one polynucleotide in the sample, thereby forming a hybridization complex; and detecting the hybridization complex, wherein the presence of the hybridization complex indicates the presence of the polynucleotide in the sample.

The invention also provides a high throughput method of screening a library of molecules or compounds to identify a ligand, the method comprising combining the polynucleotide composition with a library of molecules or compounds under conditions to allow specific binding; and detecting specific binding, thereby identifying a ligand. Libraries of molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids (PNAs), mimetics, peptides, and proteins. The invention additionally provides a method for purifying a ligand, the method comprising combining a polynucleotide of the invention with a sample under conditions which allow specific binding, recovering the bound polynucleotide, and separating the polynucleotide from the ligand, thereby obtaining purified ligand.

The invention provides an expression vector containing a polynucleotide, a host cell containing the expression vector, and a method for producing a protein comprising culturing the host cell under conditions for the expression of protein and recovering the protein from the host cell culture.

The invention also provides a protein and a method for screening a library of molecules or compounds to identify at least one ligand which specifically binds the protein. The method comprises combining the protein or a portion thereof with the library of molecules or compounds under conditions to allow specific binding and detecting specific binding, thereby identifying a ligand which specifically binds the protein. Libraries of molecules or compounds are selected from DNA molecules, RNA molecules, PNAs, mimetics, peptides, proteins, agonists, antagonists, antibodies or their fragments, immunoglobulins, inhibitors, drug compounds, and pharmaceutical agents. The invention further provides for using a protein to purify a ligand. The method comprises combining the protein or a portion thereof with a sample under conditions to allow specific binding, recovering the bound protein, and separating the protein from the ligand, thereby obtaining purified ligand.

The invention also encompasses a method of screening a patient for an immune response, disorder, condition, or disease comprising obtaining a sample from the patient; contacting the sample with

polynucleotides immobilized on a substrate under conditions to allow formation of a hybridization complex; detecting and quantifying hybridization complex to determine hybridization complex level; and comparing hybridization complex level with a standard, wherein a change in hybridization complex level relative to the standard is indicative of the immune disorder, condition, or disease. The immune disorder, condition, or disease includes pro-inflammatory disorders such as viral infections and organ-specific autoimmune disorders, including insulin-dependent diabetes mellitus, multiple sclerosis, rheumatoid arthritis, Crohn's disease and pemphigus vulgaris; and anti-inflammatory disorders such as bacterial and parasitic infections, allergies and other atopic disorders, transplantation tolerance, chronic graft versus host disease, and sytemic autoimmune disease including systemic lupus erythematosus.

DESCRIPTION OF THE TABLES

The Sequence Listing is a compilation of polynucleotides obtained by sequencing clone inserts (isolates) of different cDNAs and identified by hybrid complex formation using the cDNAs as probes on a microarray. Each sequence is identified by a sequence identification number (SEQ ID NO) and by the Incyte clone ID from which it was obtained.

Table 1 lists polynucleotides differentially expressed in peripheral blood mononuclear cells (PBMCs) in response to both pro- and anti-inflammatory cytokines. Columns 1 and 2 show the SEQ ID NO and Incyte clone ID, respectively, for each polynucleotide. Columns 3 and 4 show the differential expression of the gene in PBMCs in response to pro-inflammatory and anti-inflammatory cytokines, respectively.

Table 2 lists polynucleotides differentially expressed in PBMCs in response to pro-inflammatory cytokines. Columns 1 and 2 show the SEQ ID NO and Incyte clone ID, respectively, for each polynucleotide. Columns 3 and 4 show the differential expression of the gene in PBMCs in response to pro-inflammatory and anti-inflammatory cytokines, respectively.

Table 3 lists polynucleotides differentially expressed in PBMCs in response to anti-inflammatory cytokines. Columns 1 and 2 show the SEQ ID NO and Incyte clone ID, respectively, for each polynucleotide. Columns 3 and 4 show the differential expression of the gene in PBMCs in response to pro-inflammatory and anti-inflammatory cytokines, respectively.

Table 4 lists polynucleotides differentially regulated in response to pro-inflammatory cytokines, anti-inflammatory cytokines, or both pro- and anti-inflammatory cytokines. Columns 1 and 2 show the SEQ ID

NO and Incyte clone ID, respectively, for each polynucleotide. Columns 3 and 4 show the GenBank hit ID and corresponding GenBank 113 database, respectively, for the top hit identified by BLAST analysis. Column 5 shows the gene description for the polynucleotide. Columns 7 and 8 show the differential expression of the gene in PBMCs in response to pro-inflammatory and anti-inflammatory cytokines, respectively.

DETAILED DESCRIPTION OF THE INVENTION

Before the nucleic acid sequences and methods are presented, it is to be understood that this invention is not limited to the particular machines, methods, and materials described. Although particular embodiments are described, machines, methods, and materials similar or equivalent to these embodiments may be used to practice the invention. The preferred machines, methods, and materials set forth are not intended to limit the scope of the invention which is limited only by the appended claims.

The singular forms "a", "an", and "the" include plural reference unless the context clearly dictates otherwise. All technical and scientific terms have the meanings commonly understood by one of ordinary skill in the art. All publications are incorporated by reference for the purpose of describing and disclosing the cell lines, vectors, and methodologies which are presented and which might be used in connection with the invention. Nothing in the specification is to be construed as an admission that the invention is not entitled to antedate such disclosure by virtue of prior invention.

Definitions

"Amplification" refers to the production of additional copies of a nucleotide sequence and is carried out using polymerase chain reaction (PCR) technologies well known in the art.

"Complementary" describes the relationship between two single-stranded nucleotide sequences that anneal by base-pairing (5'-A-G-T-3' pairs with its complement 3'-T-C-A-5').

"Cytokine", as used herein, refers to a cytokine, chemokine, cytokine-like molecule, or other molecule which elicits an immune response, and includes interleukin (IL)-1β, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-12, IL-13, IL-18, interferon (IFN)-γ, tumor necrosis factor (TNF)-α, transforming growth factor (TGF)-β, granulocyte-macrophage colony-stimulating factor (GM-CSF), granulocyte colony-stimulatory factor (G-CSF), leukemia-inhibitory factor (LIF), and leptin. "Pro-inflammatory" cytokines include IL-1β, IL-6, IFN-γ, TNF-α, IL-18, IL-12, IL-2, and IL-8. "Anti-inflammatory" cytokines include IL-4, IL-10, IL-13, TGF-β, IL-7, IL-3, IL-5, GM-CSF, G-CSF, LIF, and leptin.

"E-value" refers to the statistical probability that a match between two sequences occurred by chance.

"Fragment" refers to an Incyte clone or any part of a polynucleotide which retains a usable, functional characteristic. Useful fragments may be used in hybridization technologies, to identify or purify

ligands, or in regulation of replication, transcription or translation.

"Ligand" refers to any molecule, agent, or compound which will bind specifically to a complementary site on a polynucleotide or protein. Such ligands stabilize or modulate the activity of polynucleotides or proteins of the invention and may be composed of at least one of the following: inorganic and organic substances including nucleic acids, proteins, carbohydrates, fats, and lipids.

"Microarray" refers to an ordered arrangement of hybridizable elements on a substrate. The elements are arranged so that there are a "plurality" of elements, preferably more than one element, more preferably at least 100 elements, and even more preferably at least 1,000 elements, and most preferably at least 10,000 on a 1 cm^2 substrate. The maximum number of elements is unlimited, but is at least 100,000 elements. Furthermore, the hybridization signal from each of the elements is individually distinguishable. In the present and preferred embodiment, the elements comprise polynucleotide probes.

"Oligonucleotide" is substantially equivalent to the terms amplimer, primer, oligomer, element, target, and probe and is preferably single stranded.

"Peptide nucleic acid" (PNA) refers to a DNA mimic in which nucleotide bases are attached to a pseudopeptide backbone to increase stability. PNAs, also designated antigene agents, can prevent gene expression by hybridizing to complementary messenger RNA.

"Polynucleotide" refers to a nucleic acid, oligonucleotide, polynucleotide, or any fragment thereof. It may be DNA or RNA of genomic or synthetic origin, and double-stranded or single-stranded.

"Portion" refers to any part of a protein used for any purpose, but especially for the screening of a library of molecules or compounds to identify those which specifically bind to that portion and for producing antibodies.

"Probe" refers to a probe polynucleotide capable of hybridizing with a target polynucleotide to form a probe/target complex. A "target" refers to a chain of nucleotides to which a probe can hybridize by base pairing. In most instances, the sequences of the probe and target will be complementary (no mismatches) when aligned. In some instances, there may be up to a 10% mismatch.

"Protein" refers to an amino acid sequence, peptide, polypeptide, or protein of either natural or synthetic origin. The protein is not limited to the complete, endogenous amino acid sequence and may be a fragment, epitope, variant, or derivative of a protein.

"Purified" refers to any molecules or compounds that are removed from their natural environment and are isolated or separated, and are at least about 60% free, preferably about 75% free, and most preferably about 90% free, from other components with which they are naturally associated.

"Sample" is used in its broadest sense. A sample may comprise a bodily fluid; an extract from a cell,

chromosome, organelle, or membrane isolated from a cell; genomic DNA, RNA, or cDNA in solution or bound to a substrate; a cell; a tissue; a tissue print; and the like.

"Specific binding" refers to a specific interaction between two molecules which is dependent upon a particular structure or molecular side groups. For example, the hydrogen bonding between two single stranded nucleic acids or the binding between a protein/epitope and an agonist, antagonist, or antibody.

"Substrate" refers to any rigid or semi-rigid support to which molecules or compounds are bound and includes membranes, filters, chips, slides, wafers, fibers, magnetic or nonmagnetic beads, gels, capillaries or other tubing, plates, polymers, and microparticles with a variety of surface forms including wells, trenches, pins, channels and pores.

The Invention

The present invention provides a composition comprising a plurality of polynucleotide probes, wherein each polynucleotide comprises at least a fragment of a gene whose transcript is modulated by human cytokines. The plurality of probes comprise at least a fragment of the identified and novel polynucleotide sequences, SEQ ID NOs:1-516, as presented in the Sequence Listing. Novel polynucleotides were identified using the composition, wherein each polynucleotide comprises at least a fragment of a gene selected from SEQ ID NOs:1-243 whose transcript is modulated by human cytokines. SEQ ID NOs:1-172 comprise at least a fragment of a gene whose transcript level in a sample is modulated in response to both pro-inflammatory cytokines and anti-inflammatory cytokines as shown in Table 1. SEQ ID NOs:173-218 comprise at least a fragment of a gene whose transcript level in a sample is modulated in response to pro-inflammatory cytokines as shown in Table 2. SEQ ID NOs:219-243 comprise at least a fragment of a gene whose transcript level in a sample is modulated in response to anti-inflammatory cytokines as shown in Table 3.

In a particular embodiment, the probes are arranged on a substrate, preferably a microarray. The microarray can be used for large scale genetic or gene expression analysis of a large number of targets. The microarray can also be used in the diagnosis of diseases and in the monitoring of treatments where altered gene expression is associated with an immune response involving an allergy, a bacterial, viral, or parasitic infection, and the like. Further, the microarray can be employed to investigate an individual's predisposition to an autoimmune disorder including insulin-dependent diabetes mellitus, multiple sclerosis, rheumatoid arthritis, Crohn's disease, systemic lupus erythematosus, and the like.

When the composition of the invention is employed as probes on a microarray, the probes are organized in an ordered fashion so that each element is present at a specified location on the substrate. Because the probes are at specified locations on the substrate, the hybridization patterns and intensities, which together create a unique expression profile, can be interpreted in terms of expression levels of particular

genes and can be correlated with a particular metabolic process, condition, disorder, disease, stage of disease, or treatment.

The composition comprising a plurality of probes can also be used to identify or purify a molecule or compound which specifically binds to at least one of the probes. These molecules may be identified from a sample or in high throughput mode from a library of mRNAs, cDNAs, genomic fragments, and the like. Typically, samples or libraries will include targets of diagnostic or therapeutic interest. If nucleic acids in a particular sample enhance the hybridization background, it may be advantageous to remove these nucleic acids. One method for removing additional nucleic acids is by hybridizing the sample with immobilized probes and washing away those nucleic acids that do not form hybridization complexes. At a later point, hybridization complexes can be dissociated, thereby releasing the purified targets.

Method for Selecting Polynucleotides

The polynucleotides which represent genes modulated by cytokines were identified by the following method. Samples were prepared from peripheral blood mononuclear cells (PBMCs) treated with pro-inflammatory or anti-inflammatory cytokines over a defined time course. Gene expression patterns between cytokine-treated and untreated cell samples were compared. The comparisons allowed the identification of genes either upregulated or downregulated in response to each cytokine group and identification of genes either upregulated or downregulated in response to both cytokine groups. SEQ ID NOs:1-516 represent genes modulated by cytokines as identified by differential expression of polynucleotide probes on the substrate. Since polynucleotides are identified solely based on expression levels, it is not essential to know a priori the function of the particular gene. The overall pattern of expression is especially useful in characterizing expression patterns associated with an immune response due to an infection or an autoimmune disorder.

Polynucleotides

The polynucleotides of the invention can be genomic DNA, cDNA, mRNA, or any RNA-like or DNA-like material such as peptide nucleic acids, branched DNAs and the like. Polynucleotide probes can be sense or antisense strand. Where targets are double stranded, probes may be either sense or antisense strands. Where targets are single stranded, probes are complementary single strands.

In one embodiment, polynucleotides are cDNAs. In another embodiment, polynucleotides are plasmids. In the case of plasmids, the sequence of interest is the cDNA insert. The size of the cDNAs may vary and is preferably from 50 to 10,000 nucleotides, more preferably from 50 to 4000 nucleotides, and most preferably about 400 nucleotides in length.

Polynucleotides can be prepared by a variety of synthetic or enzymatic methods well known in the

art. Polynucleotides can be synthesized, in whole or in part, using chemical methods well known in the art (Caruthers et al. (1980) Nucleic Acids Symp. Ser. (7):215-233). Alternatively, polynucleotides can be produced enzymatically or recombinantly, by in vitro or in vivo transcription.

Nucleotide analogs can be incorporated into polynucleotide probes by methods well known in the art. The only requirement is that the incorporated nucleotide analogs of the probe must base pair with target nucleotides. For example, certain guanine nucleotides can be substituted with hypoxanthine which base pairs with cytosine residues. However, these base pairs are less stable than those between guanine and cytosine. Alternatively, adenine nucleotides can be substituted with 2, 6-diaminopurine which can form stronger base pairs with thymidine than those between adenine and thymidine.

Additionally, polynucleotides can include nucleotides that have been derivatized chemically or enzymatically. Typical chemical modifications include derivatization with acyl, alkyl, aryl or amino groups.

Polynucleotides probes can be synthesized on a substrate. Synthesis on the surface of a substrate may be accomplished using a chemical coupling procedure and a piezoelectric printing apparatus as described by Baldeschweiler et al. (PCT publication WO95/251116). Alternatively, the probe can be synthesized on a substrate surface using a self-addressable electronic device that controls when reagents are added as described by Heller et al. (USPN 5,605,662; incorporated herein by reference).

Complementary DNA (cDNA) can be arranged and then immobilized on a substrate. Probes can be immobilized by covalent means such as by chemical bonding procedures or UV. In one such method, a cDNA is bound to a glass surface which has been modified to contain epoxide or aldehyde groups. In another case, a cDNA probe is placed on a polylysine coated surface and then UV cross-linked as described by Shalon et al. (WO95/35505). In yet another method, a DNA is actively transported from a solution to a given position on a substrate by electrical means (Heller et al., supra). Alternatively, probes, clones, plasmids or cells can be arranged on a filter. In the latter case, cells are lysed, proteins and cellular components degraded, and the DNA is coupled to the filter by UV cross-linking.

Furthermore, probes do not have to be directly bound to the substrate, but rather can be bound to the substrate through a linker group. The linker groups are typically about 6 to 50 atoms long to provide exposure of the attached probe. Preferred linker groups include ethylene glycol oligomers, diamines, diacids and the like. Reactive groups on the substrate surface react with a terminal group of the linker to bind the linker to the substrate. The other terminus of the linker is then bound to the probe.

Probes can be attached to a substrate by sequentially dispensing reagents for probe synthesis on the substrate surface or by dispensing preformed DNA fragments to the substrate surface. Typical dispensers include a micropipette delivering solution to the substrate with a robotic system to control the position of the

micropipette with respect to the substrate. There can be a multiplicity of dispensers so that reagents can be delivered to the reaction regions efficiently.

Uses of the Polynucleotides

The polynucleotide probes of the present invention may be used for a variety of purposes. For example, the composition of the invention may be used as probes on a microarray. The microarray can be used in high-throughput methods such as for detecting a related polynucleotide in a sample, screening libraries of molecules or compounds to identify a ligand, or diagnosing a particular condition, disease, or disorder associated with an immune response. Alternatively, a polynucleotide complementary to a given sequence of the sequence listing can inhibit or inactivate a therapeutically relevant gene related to the polynucleotide.

Array Analysis

I. Sample Preparation

In order to conduct sample analysis, a sample containing targets is provided. The samples can be any sample containing targets and obtained from any bodily fluid (blood, urine, saliva, phlegm, gastric juices, etc.), cultured cells, biopsies, or other tissue or forensic preparations.

DNA or RNA can be isolated from a sample according to any of a number of methods well known to those of skill in the art. For example, methods of purification of nucleic acids are described in Tijssen (1993) Laboratory Techniques in Biochemistry and Molecular Biology: Hybridization With Nucleic Acid Probes, Part I. Theory and Nucleic Acid Preparation, Elsevier Science, New York NY). In one case, total RNA is isolated using TRIZOL reagent (Life Technologies, Gaithersburg MD), and mRNA is isolated using oligo d(T) column chromatography or glass beads. In one alternative, when targets are derived from an mRNA, targets can be a DNA reverse transcribed from that mRNA, an RNA transcribed from that DNA, a DNA amplified from that DNA, an RNA transcribed from the amplified DNA, and the like. When target is derived from DNA, target can be RNA reverse transcribed from that DNA, or DNA amplified from that DNA. In yet another alternative, targets are prepared by more than one method.

When targets in the sample are amplified it is desirable to maintain their relative abundances, including low abundance transcripts. Total mRNA can be amplified by reverse transcription using a reverse transcriptase and a primer consisting of oligo d(T) and a sequence encoding the phage T7 promoter to provide a single stranded DNA template. The second DNA strand is polymerized using a DNA polymerase and a RNAse which assists in breaking up the DNA/RNA hybrid. After synthesis of the double stranded DNA, T7 RNA polymerase can be added, and RNA transcribed from the second DNA strand template as described by Van Gelder et al. (USPN 5,545,522; incorporated herein by reference). RNA can be amplified in vitro, in situ

or in vivo (See Eberwine, USPN 5,514,545; incorporated herein by reference).

It is also advantageous to include quantitation controls to assure that amplification and labeling procedures do not change the true abundance of targets in a sample. For this purpose, a sample is spiked with a known amount of a control target, and the composition of probes includes reference probes which specifically hybridize with the control targets. After hybridization and processing, the hybridization signals should reflect accurately the amounts of control target added to the sample.

Prior to hybridization, it may be desirable to fragment the targets. Fragmentation improves hybridization by minimizing secondary structure and cross-hybridization among target nucleic acids in the sample or with noncomplementary probes. Fragmentation can be performed by mechanical or chemical means.

Targets may be labeled with one or more labeling moieties to allow for detection and quantitation of hybridized probe/target complexes. The labeling moieties can include compositions that can be detected by spectroscopic, photochemical, biochemical, bioelectronic, immunochemical, electrical, optical or chemical means. The labeling moieties include radioisotopes, such as ^{32}P, ^{33}P or ^{35}S, chemiluminescent compounds, labeled binding proteins, heavy metal atoms, spectroscopic markers such as fluorescent markers and dyes, magnetic labels, linked enzymes, mass spectrometry tags, spin labels, electron transfer donors and acceptors, and the like. Exemplary dyes include quinoline dyes, triarylmethane dyes, phthaleins, azo dyes, cyanine dyes, and the like. Preferably, fluorescent markers absorb light above about 300 nm, preferably above 400 nm, and usually emit light at wavelengths at least greater than 10 nm above the wavelength of the light absorbed. Preferred fluorescent markers include fluorescein, phycoerythrin, rhodamine, lissamine, Cy3, and Cy5.

Labeling can be carried out during an amplification reaction, such as by polymerase chain reaction, nick translation, or in vitro transcription reactions. Label can also be incorporated after or without an amplification step, such as by 5' or 3'-end-labeling reactions. In 5'-end labeling, the 5' end of the target is dephosphorylated by alkaline phosphatase and then phosphorylated by T4 polynucleotide kinase in the presence of [γ-^{32}P]ATP. In 3'-end labeling, the label is incorporated by using either terminal transferase or by incubating the target with a labeled oligonucleotide in the presence of T4 RNA ligase.

Alternatively, the labeling moiety can be incorporated after hybridization once a probe/target complex has formed. In one case, biotin is first incorporated during an amplification step as described above. After the hybridization reaction, unbound nucleic acids are rinsed away so that the only biotin remaining bound to the substrate is that attached to targets that are hybridized to probes. Then, an avidin-conjugated fluorophore, such as avidin-phycoerythrin, that binds with high affinity to biotin is added. In another case,

the labeling moiety is incorporated by intercalation into preformed target/probe complexes. In this case, an intercalating dye such as a psoralen-linked dye can be employed.

II. Hybridization and Detection

Hybridization allows a denatured polynucleotide probe and a denatured complementary target to form a stable duplex through base pairing. Hybridization methods are well known to those skilled in the art. (See, e.g., Ausubel, et al. (1997) Short Protocols in Molecular Biology, John Wiley & Sons, New York NY, Units 2.8-2.11, 3.18-3.19 and 4-6-4.9.) Conditions can be selected for hybridization where completely complementary probe and target can hybridize, i.e., each base pair must interact with its complementary base pair. Alternatively, conditions can be selected where probe and target have mismatches of up to about 10% but are still able to hybridize. Suitable conditions can be selected, for example, by varying the concentrations of salt in the prehybridization, hybridization, and wash solutions or by varying the hybridization and wash temperatures. With some substrates, the temperature can be decreased by adding formamide to the prehybridization and hybridization solutions.

Hybridization can be performed at low stringency with buffers, such as 5xSSC with 1% sodium dodecyl sulfate (SDS) at 60°C, which permits hybridization between probe and target sequences that contain some mismatches to form probe/target complexes. Subsequent washes are performed at higher stringency with buffers such as 0.2xSSC with 0.1% SDS at either 45°C (medium stringency) or 68°C (high stringency), to maintain hybridization of only those probe/target complexes that contain completely complementary sequences. Background signals can be reduced by the use of detergents such as SDS, Sarcosyl, or Triton X-100, or a blocking agent, such as salmon sperm DNA.

Hybridization specificity can be evaluated by comparing the hybridization of control probe to target sequences that are added to a sample in a known amount. The control probe may have one or more sequence mismatches compared with the corresponding target. In this manner, it is possible to evaluate whether only complementary targets are hybridizing to the probes or whether mismatched hybrid duplexes are forming.

Hybridization reactions can be performed in absolute or differential hybridization formats. In the absolute hybridization format, targets from one sample are hybridized to microarray elements, and signals detected after hybridization complexes form. Signal strength correlates with target levels in a sample. In the differential hybridization format, differential expression of a set of genes in two biological samples is analyzed. Targets from the two samples are prepared and labeled with different labeling moieties. A mixture of the two labeled targets is hybridized to the microarray elements, and signals are examined under conditions in which the emissions from the two different labels are individually detectable. Probes in the microarray that are hybridized to substantially equal numbers of targets derived from both biological samples give a distinct

combined fluorescence (Shalon et al., PCT publication WO95/35505). In a preferred embodiment, the labels are fluorescent labels with distinguishable emission spectra, such as a lissamine conjugated nucleotide analog and a fluorescein conjugated nucleotide analog. In another embodiment Cy3 and Cy5 fluorophores (Amersham Pharmacia Biotech, Piscataway NJ) are employed.

After hybridization, the microarray is washed to remove nonhybridized polynucleotides, and complex formation between the hybridizable array elements and the targets is examined. Methods for detecting complex formation are well known to those skilled in the art. In a preferred embodiment, the targets are labeled with a fluorescent label, and measurement of levels and patterns of fluorescence indicative of complex formation is accomplished by fluorescence microscopy, preferably confocal fluorescence microscopy. An argon ion laser excites the fluorescent label, emissions are directed to a photomultiplier, and the amount of emitted light is detected and quantitated. The detected signal should be proportional to the amount of probe/target complexes at each position of the microarray. The fluorescence microscope can be associated with a computer-driven scanner device to generate a quantitative two-dimensional image of hybridization intensity. The scanned image is examined to determine the abundance/expression level of hybridized target.

Typically, microarray fluorescence intensities can be normalized to take into account variations in hybridization intensities when more than one microarray is used under similar test conditions. In a preferred embodiment, individual polynucleotide probe/target complex hybridization intensities are normalized using the intensities derived from internal normalization controls contained on each microarray.

III. Screening Assays

Probes may be used to screen a library of molecules or compounds for specific binding affinity. The libraries may be DNA molecules, RNA molecules, PNAs, peptides, proteins such as transcription factors, enhancers, repressors, and other organic or inorganic ligands which regulate activities such as replication, transcription, or translation of polynucleotides in the biological system. The assay involves combining the probe with the library of molecules or compounds under conditions allowing specific binding, and detecting specific binding of a ligand to the probe.

IV. Purification of Ligand

Probes may be used to purify a ligand from a sample. A method for using a probe to purify a ligand would involve combining the probe with a sample under conditions to allow specific binding, detecting specific binding, recovering the bound protein, and using an appropriate agent to separate the polynucleotide from the purified ligand.

Protein Production and Uses

I. Expression of Encoded Proteins

Polynucleotides of the invention may be cloned into a vector and used to express the encoded protein or portions thereof in host cells. The polynucleotides can be engineered by such methods as DNA shuffling (Stemmer and Crameri, USPN 5,830,721 incorporated by reference herein) and site-directed mutagenesis to create new restriction sites, alter glycosylation patterns, change codon preference to increase expression in a particular host, produce splice variants, extend half-life, and the like. The expression vector may contain transcriptional and translational control elements (promoters, enhancers, specific initiation signals, and 3' polyadenylation sequence) from various sources which have been selected for their efficiency in a particular host. The vector, polynucleotide, and regulatory elements are combined using in vitro recombinant DNA techniques, synthetic techniques, and/or in vivo genetic recombination techniques well known in the art and described in Sambrook (supra, ch. 4, 8, 16 and 17).

A variety of host systems may be transformed with an expression vector. These include, but are not limited to, bacteria transformed with recombinant bacteriophage, plasmid, or cosmid DNA expression vectors; yeast transformed with yeast expression vectors; insect cell systems transformed with baculovirus expression vectors; plant cell systems transformed with expression vectors containing viral and/or bacterial elements; or animal cell systems (Ausubel supra, Unit 16). For example, an adenovirus transcription/translation complex may be utilized in mammalian cells. After sequences are ligated into the E1 or E3 region of the viral genome, infective virus are used to transform and express the protein in host cells. The Rous sarcoma virus enhancer or SV40 or EBV-based vectors may also be used for high-level protein expression.

Routine cloning, subcloning, and propagation of polynucleotides can be achieved using the multifunctional PBLUESCRIPT vector (Stratagene, La Jolla CA) or PSPORT1 plasmid (Life Technologies). Introduction of a nucleic acid sequence into the multiple cloning site of these vectors disrupts the *lacZ* gene and allows colorimetric screening for transformed bacteria. In addition, these vectors may be useful for in vitro transcription, dideoxy sequencing, single strand rescue with helper phage, and creation of nested deletions in the cloned sequence.

For long term production of recombinant proteins, the vector can be stably transformed into cell lines along with a selectable or visible marker gene on the same or on a separate vector. After transformation, cells are allowed to grow for about 1 to 2 days in enriched media and then are transferred to selective media. Selectable markers, such as antimetabolite, antibiotic, or herbicide resistance genes, confer resistance to the relevant selective agent and allow growth and recovery of cells which successfully express the introduced sequences. Resistant clones identified either by survival on selective media or by the expression of visible

markers, such as anthocyanins, green fluorescent protein (GFP), ß glucuronidase, luciferase, and the like, may be propagated using culture techniques. Visible markers are also used to quantify the amount of protein expressed by the introduced genes. Verification that the host cell contains the desired polynucleotide is based on DNA-DNA or DNA-RNA hybridizations or PCR amplification techniques.

The host cell may be chosen for its ability to modify a recombinant protein in a desired fashion. Such modifications include acetylation, carboxylation, glycosylation, phosphorylation, lipidation, acylation and the like. Post-translational processing which cleaves a "prepro" form may also be used to specify protein targeting, folding, and/or activity. Different host cells available from the American Type Culture Collection (Manassas VA) which have specific cellular machinery and characteristic mechanisms for post-translational activities may be chosen to ensure the correct modification and processing of the recombinant protein.

II. Recovery of Proteins from Cell Culture

Heterologous moieties engineered into a vector for ease of purification include glutathione S-transferase (GST), calmodulin binding peptide (CBP), 6-His, FLAG, MYC, and the like. GST, CBP, and 6-His are purified using commercially available affinity matrices such as immobilized glutathione, calmodulin, and metal-chelate resins, respectively. FLAG and MYC are purified using commercially available monoclonal and polyclonal antibodies. A proteolytic cleavage site may be located between the desired protein sequence and the heterologous moiety for ease of separation following purification. Methods for recombinant protein expression and purification are discussed in Ausubel (supra, unit 16) and are commercially available.

III. Screening Assays

A protein or a portion thereof transcribed and translated from a probe may be used to screen libraries of molecules or compounds in any of a variety of screening assays. The protein or portion thereof may be free in solution, affixed to an abiotic or biotic substrate, borne on a cell surface, or located intracellularly. Specific binding between the protein and a ligand may be measured. Depending on the kind of library being screened, the assay may be used to identify DNA, RNA, PNAs, agonists, antagonists, antibodies, immunoglobulins, inhibitors, mimetics, peptides, proteins, drugs, or any other ligand, which specifically binds the protein. One method for high throughput screening using very small assay volumes and very small amounts of test compound is described by Burbaum et al. (USPN 5,876,946; incorporated herein by reference) which screens large numbers of molecules for enzyme inhibition or receptor binding.

The protein may be used in screening assays of phagemid or B-lymphocyte immunoglobulin libraries to identify antibodies having the desired specificity. Numerous protocols for competitive binding or immunoassays using either polyclonal or monoclonal antibodies with established specificities are well known

in the art. Such immunoassays typically involve the measurement of complex formation between the protein and its specific antibody. The method may employ a two-site, monoclonal-based immunoassay utilizing monoclonal antibodies reactive to two non-interfering epitopes or a competitive binding assay (Pound (1998) Immunochemical Protocols, Humana Press, Totowa NJ).

IV. Purification of a Ligand

The encoded protein or a portion thereof may be used to purify a ligand from a sample. A method for using a protein or a portion thereof to purify a ligand would involve combining the protein or a portion thereof with a sample under conditions to allow specific binding, detecting specific binding between the protein and ligand, recovering the bound protein, and using an appropriate agent to separate the protein from the purified ligand.

V. Chemical Synthesis of Peptides

Proteins or portions thereof may be produced not only by recombinant methods, but also by using chemical methods well known in the art. Solid phase peptide synthesis may be carried out in a batchwise or continuous flow process which sequentially adds α-amino and side chain-protected amino acid residues to an insoluble polymeric support via a linker group. A linker group such as methylamine-derivatized polyethylene glycol is attached to poly(styrene-co-divinylbenzene) to form the support resin. The amino acid residues are *N*-α-protected by acid labile Boc (t-butyloxycarbonyl) or base-labile Fmoc (9-fluorenylmethoxycarbonyl). The carboxyl group of the protected amino acid is coupled to the amine of the linker group to anchor the residue to the solid phase support resin. Trifluoroacetic acid or piperidine are used to remove the protecting group in the case of Boc or Fmoc, respectively. Each additional amino acid is added to the anchored residue using a coupling agent or pre-activated amino acid derivative, and the resin is washed. The full length peptide is synthesized by sequential deprotection, coupling of derivitized amino acids, and washing with dichloromethane and/or N, N-dimethylformamide. The peptide is cleaved between the peptide carboxy terminus and the linker group to yield a peptide acid or amide. (Novabiochem 1997/98 Catalog and Peptide Synthesis Handbook, San Diego CA, pp. S1-S20). Automated synthesis may also be carried out on machines such as the ABI 431A peptide synthesizer (PE Biosystems, Foster City CA). A protein or portion thereof may be substantially purified by preparative high performance liquid chromatography and its composition confirmed by amino acid analysis or by sequencing (Creighton (1984) Proteins, Structures and Molecular Properties, WH Freeman, New York NY).

Preparation of Antibodies

Various hosts including goats, rabbits, rats, mice, humans, and others may be immunized by injection with protein or any portion thereof. Adjuvants such as Freund's, mineral gels, and surface active substances

such as lysolecithin, pluronic polyols, polyanions, peptides, oil emulsions, keyhole limpet hemacyanin (KLH), and dinitrophenol may be used to increase immunological response. The oligopeptide, peptide, or portion of protein used to induce antibodies should consist of at least about five amino acids, more preferably ten amino acids, which are identical to a portion of the natural protein. Oligonucleotides may be fused with proteins such as KLH in order to produce antibodies to the chimeric molecule.

Monoclonal antibodies may be prepared using any technique which provides for the production of antibodies by continuous cell lines in culture. These include, but are not limited to, the hybridoma technique, the human B-cell hybridoma technique, and the EBV-hybridoma technique. (Kohler et al. (1975) Nature 256:495-497; Kozbor et al. (1985) J. Immunol. Methods 81:31-42; Cote et al. (1983) Proc. Natl. Acad. Sci. 80:2026-2030; and Cole et al. (1984) Mol. Cell Biol. 62:109-120.)

Alternatively, techniques described for the production of single chain antibodies may be adapted, using methods known in the art, to produce epitope specific single chain antibodies. Antibody fragments which contain specific binding sites for epitopes of the mammalian protein may also be generated. For example, such fragments include, but are not limited to, F(ab')2 fragments produced by pepsin digestion of the antibody molecule and Fab fragments generated by reducing the disulfide bridges of the F(ab')2 fragments. Alternatively, Fab expression libraries may be constructed to allow rapid and easy identification of monoclonal Fab fragments with the desired specificity. (Huse et al. (1989) Science 246:1275-1281.)

Labeling of Molecules for Assay

A wide variety of labeling moieties and conjugation techniques are known by those skilled in the art and may be used in various nucleic acid, amino acid, and antibody assays. Synthesis of labeled molecules may be achieved using Promega (Madison WI) or Amersham Pharmacia Biotech kits for incorporation of a labeled nucleotide such as ^{32}P-dCTP, Cy3-dCTP or Cy5-dCTP or amino acid such as ^{35}S-methionine. Nucleotides and amino acids may be directly labeled with a variety of substances including fluorescent, chemiluminescent, or chromogenic agents, and the like, by chemical conjugation to amines, thiols and other groups present in the molecules using reagents such as BIODIPY or FITC (Molecular Probes, Eugene OR).

Diagnostics

The polynucleotides, or fragments thereof, may be used to detect and quantify altered gene expression; absence, presence, or excess expression of mRNAs; or to monitor mRNA levels during therapeutic intervention. Conditions, diseases or disorders associated with altered expression include pro-inflammatory disorders such as organ-specific autoimmune disorders including insulin-dependent diabetes mellitus, multiple sclerosis, rheumatoid arthritis, Crohn's disease and pemphigus vulgaris; and anti-inflammatory disorders including allergies and other atopic disorders, transplantation tolerance, chronic graft

versus host disease, and sytemic autoimmune diseases such as systemic lupus erythematosus. In addition to disorders, the polynucleotides are useful for monitoring the progression of infectious diseases including, but not limited to, tuberculosis, leprosy, Leishmania, and viral infections such as HIV infection. These polynucleotides can also be utilized as markers of treatment efficacy against the diseases noted above and other immune disorders, conditions, and diseases over a period ranging from several days to months. The diagnostic assay may use hybridization or amplification technology to compare gene expression in a biological sample from a patient to standard samples in order to detect altered gene expression. Qualitative or quantitative methods for this comparison are well known in the art.

For example, the polynucleotide may be labeled by standard methods and added to a biological sample from a patient under conditions for the formation of hybridization complexes. After an incubation period, the sample is washed and the amount of label (or signal) associated with hybridization complexes, is quantified and compared with a standard value. If the amount of label in the patient sample is significantly altered in comparison to the standard value, then the presence of the associated condition, disease or disorder is indicated.

In order to provide a basis for the diagnosis of a condition, disease or disorder associated with gene expression, a normal or standard expression profile is established. This may be accomplished by combining a biological sample taken from normal subjects, either animal or human, with a probe under conditions for hybridization or amplification. Standard hybridization may be quantified by comparing the values obtained using normal subjects with values from an experiment in which a known amount of a substantially purified target sequence is used. Standard values obtained in this manner may be compared with values obtained from samples from patients who are symptomatic for a particular condition, disease, or disorder. Deviation from standard values toward those associated with a particular condition is used to diagnose that condition.

Such assays may also be used to evaluate the efficacy of a particular therapeutic treatment regimen in animal studies and in clinical trial or to monitor the treatment of an individual patient. Once the presence of a condition is established and a treatment protocol is initiated, diagnostic assays may be repeated on a regular basis to determine if the level of expression in the patient begins to approximate that which is observed in a normal subject. The results obtained from successive assays may be used to show the efficacy of treatment over a period ranging from several days to months.

Gene Expression Profiles

A gene expression profile comprises a plurality of probes and a plurality of detectable hybridization complexes, wherein each complex is formed by hybridization of one or more probes to one or more complementary targets in a sample. The polynucleotide composition of the invention is used as probes on a

microarray to analyze gene expression profiles. In one embodiment, the microarray is used to monitor the progression of disease. Researchers can assess and catalog the differences in gene expression between healthy and diseased tissues or cells. By analyzing changes in patterns of gene expression, disease can be diagnosed at earlier stages before the patient is symptomatic. The invention can be used to formulate a prognosis and to design a treatment regimen. The invention can also be used to monitor the efficacy of treatment. For treatments with known side effects, the microarray is employed to improve the treatment regimen. A dosage is established that causes a change in genetic expression patterns indicative of successful treatment. Expression patterns associated with the onset of undesirable side effects are avoided. This approach may be more sensitive and rapid than waiting for the patient to show inadequate improvement, or to manifest side effects, before altering the course of treatment.

In another embodiment, animal models which mimic a human disease can be used to characterize expression profiles associated with a particular condition, disorder or disease or treatment of the condition, disorder or disease. Novel treatment regimens may be tested in these animal models using microarrays to establish and then follow expression profiles over time. In addition, microarrays may be used with cell cultures or tissues removed from animal models to rapidly screen large numbers of candidate drug molecules, looking for ones that produce an expression profile similar to those of known therapeutic drugs, with the expectation that molecules with the same expression profile will likely have similar therapeutic effects. Thus, the invention provides the means to rapidly determine the molecular mode of action of a drug.

Assays Using Antibodies

Antibodies directed against epitopes on a protein encoded by a polynucleotide of the invention may be used in assays to quantify the amount of protein found in a particular human cell. Such assays include methods utilizing the antibody and a label to detect expression level under normal or disease conditions. The antibodies may be used with or without modification, and labeled by joining them, either covalently or noncovalently, with a labeling moiety.

Protocols for detecting and measuring protein expression using either polyclonal or monoclonal antibodies are well known in the art. Examples include ELISA, RIA, and fluorescent activated cell sorting (FACS). Such immunoassays typically involve the formation of complexes between the protein and its specific antibody and the measurement of such complexes. These and other assays are described in Pound (supra). The method may employ a two-site, monoclonal-based immunoassay utilizing monoclonal antibodies reactive to two non-interfering epitopes, or a competitive binding assay. (See, e.g., Coligan et al. (1997) Current Protocols in Immunology, Wiley-Interscience, New York NY; Pound, supra)

Therapeutics

The polynucleotides of the present invention are useful in antisense technology. Target protein expression is modulated through the specific binding of an antisense probe sequence to a target sequence which either encodes the target protein or directs its expression. The antisense probe can be DNA, RNA, or nucleic acid mimics and analogs. The target sequence can be cellular mRNA and/or genomic DNA and binding of the antisense sequence can affect translation and/or transcription, respectively. (Rossi et al. (1991) Antisense Res. Dev. 1(3):285-288; Lee et al. (1998) Biochemistry 37(3):900-1010; Pardridge et al. (1995) Proc. Nat. Acad. Sci. 92(12):5592-5596; and Nielsen and Haaima (1997) Chem. Soc. Rev. 96:73-78.)

The polynucleotides of the present invention and fragments thereof can be used as antisense sequences to modify the expression of the protein encoded by the polynucleotide. The antisense sequences can be produced ex vivo, for example by using any of the nucleic acid synthesizers or other automated systems known in the art. Antisense sequences can also be produced by in vitro transcription or amplification (Agrawal, supra). In therapeutic use, any gene delivery system suitable for introduction of the antisense sequences into appropriate target cells can be used. Antisense sequences can be delivered intracellularly in the form of an expression plasmid which, upon transcription, produces a sequence complementary to at least a portion of the cellular sequence encoding the target protein. (See, e.g., Slater et al. (1998) J. Allergy Cli. Immunol. 102(3):469-475; and Scanlon et al. (1995) 9(13):1288-1296.) Antisense sequences can also be introduced intracellularly through the use of viral vectors, such as retrovirus and adeno-associated virus vectors. (See, e.g., Miller (1990) Blood 76:271; Ausubel, supra; Uckert and Walther (1994) Pharmacol. Ther. 63(3):323-347.) Other gene delivery mechanisms include liposome-derived systems, artificial viral envelopes, and other systems known in the art. (See, e.g., Rossi (1995) Br. Med. Bull. 51(1):217-225; Boado et al. (1998) J. Pharm. Sci. 87(11):1308-1315; and Morris et al. (1997) Nucleic Acids Res. 25(14):2730-2736.)

Molecules which modulate the expression of a polynucleotide of the invention or activity of the encoded protein are useful as therapeutics for conditions and disorders associated with an immune response. Such molecules include agonists which increase the expression or activity of the polynucleotide or encoded protein, respectively; or antagonists which decrease expression or activity of the polynucleotide or encoded protein, respectively. In one aspect, an antibody which specifically binds the protein may be used directly as an antagonist or indirectly as a targeting or delivery mechanism for bringing a pharmaceutical agent to cells or tissues which express the protein.

Additionally, any of the proteins or their ligands, or complementary nucleic acid sequences may be administered in combination with other appropriate therapeutic agents. Selection of the appropriate agents for use in combination therapy may be made by one of ordinary skill in the art, according to conventional

pharmaceutical principles. The combination of therapeutic agents may act synergistically to effect the treatment or prevention of the conditions and disorders associated with an immune response. Using this approach, one may be able to achieve therapeutic efficacy with lower dosages of each agent, thus reducing the potential for adverse side effects. Further, the therapeutic agents may be combined with pharmaceutically-acceptable carriers including excipients and auxiliaries which facilitate processing of the active compounds into preparations which can be used pharmaceutically. Further details on techniques for formulation and administration may be found in the latest edition of Remington's Pharmaceutical Sciences (Maack Publishing Co., Easton PA).

It is understood that this invention is not limited to the particular methodology, protocols, and reagents described, as these may vary. It is also understood that the terminology used herein is for the purpose of describing particular embodiments only, and is not intended to limit the scope of the present invention which will be limited only by the appended claims. The examples below are provided to illustrate the subject invention and are not included for the purpose of limiting the invention.

EXAMPLES

I. Construction of cDNA Libraries

RNA was purchased from CLONTECH Laboratories, Inc. (Palo Alto CA) or isolated from various tissues. Some tissues were homogenized and lysed in guanidinium isothiocyanate, while others were homogenized and lysed in phenol or in a suitable mixture of denaturants, such as TRIZOL reagent (Life Technologies). The resulting lysates were centrifuged over CsCl cushions or extracted with chloroform. RNA was precipitated with either isopropanol or ethanol and sodium acetate, or by other routine methods.

Phenol extraction and precipitation of RNA were repeated as necessary to increase RNA purity. In most cases, RNA was treated with DNase. For most libraries, poly(A) RNA was isolated using oligo d(T)-coupled paramagnetic particles (Promega), OLIGOTEX latex particles (QIAGEN, Valencia CA), or an OLIGOTEX mRNA purification kit (QIAGEN). Alternatively, poly(A) RNA was isolated directly from tissue lysates using other kits, including the POLY(A)PURE mRNA purification kit (Ambion, Austin TX).

In some cases, Stratagene was provided with RNA and constructed the corresponding cDNA libraries. Otherwise, cDNA was synthesized and cDNA libraries were constructed with the UNIZAP vector system (Stratagene) or SUPERSCRIPT plasmid system (Life Technologies) using the recommended procedures or similar methods known in the art. (See Ausubel, supra, Units 5.1 through 6.6.) Reverse transcription was initiated using oligo d(T) or random primers. Synthetic oligonucleotide adapters were ligated to double stranded cDNA, and the cDNA was digested with the appropriate restriction enzyme or enzymes. For most libraries, the cDNA was size-selected (300-1000 bp) using SEPHACRYL S1000,

SEPHAROSE CL2B, or SEPHAROSE CL4B column chromatography (Amersham Pharmacia Biotech) or preparative agarose gel electrophoresis. cDNAs were ligated into compatible restriction enzyme sites of the polylinker of the PBLUESCRIPT plasmid (Stratagene), PSPORT1 plasmid (Life Technologies), or PINCY plasmid (Incyte Pharmaceuticals, Palo Alto CA). Recombinant plasmids were transformed into XL1-Blue, XL1-BlueMRF, or SOLR competent E. coli cells (Stratagene) or DH5α, DH10B, or ELECTROMAX DH10B competent E. coli cells (Life Technologies).

In some cases, libraries were superinfected with a 5x excess of the helper phage, M13K07, according to the method of Vieira et al. (1987, Methods Enzymol. 153:3-11) and normalized or subtracted using a methodology adapted from Soares (supra), Swaroop et al. (1991, Nucl. Acids Res. 19:1954), and Bonaldo et al. (1996, Genome Research 6:791-806). The modified Soares normalization procedure was utilized to reduce the repetitive cloning of highly expressed high abundance cDNAs while maintaining the overall sequence complexity of the library. Modification included significantly longer hybridization times which allowed for increased gene discovery rates by biasing the normalized libraries toward those infrequently expressed low-abundance cDNAs which are poorly represented in a standard transcript image (Soares et al. (1994) Proc. Natl. Acad. Sci. 91:9228-9232).

II. Isolation and Sequencing of cDNA Clones

Plasmids were recovered from host cells by in vivo excision using the UNIZAP vector system (Stratagene) or by cell lysis. Plasmids were purified using one of the following: the Magic or WIZARD Minipreps DNA purification system (Promega); the AGTC Miniprep purification kit (Edge BioSystems, Gaithersburg MD); the QIAWELL 8, QIAWELL 8 Plus, or QIAWELL 8 Ultra plasmid purification systems, or the R.E.A.L. PREP 96 plasmid purification kit (QIAGEN). Following precipitation, plasmids were resuspended in 0.1 ml of distilled water and stored, with or without lyophilization, at 4°C.

Alternatively, plasmid DNA was amplified from host cell lysates using direct link PCR in a high-throughput format (Rao (1994) Anal. Biochem. 216:1-14). Host cell lysis and thermal cycling steps were carried out in a single reaction mixture. Samples were processed and stored in 384-well plates, and the concentration of amplified plasmid DNA was quantified fluorometrically using PICOGREEN dye (Molecular Probes) and a FLUOROSKAN II fluorescence scanner (Labsystems Oy, Helsinki, Finland).

cDNA sequencing reactions were processed using standard methods or high-throughput instrumentation such as the ABI CATALYST 800 thermal cycler (PE Biosystems) or the DNA ENGINE thermal cycler (MJ Research, Watertown MA) in conjunction with the HYDRA microdispenser (Robbins Scientific, Sunnyvale CA) or the MICROLAB 2200 system (Hamilton). cDNA sequencing reactions were prepared using reagents provided by Amersham Pharmacia Biotech or supplied in ABI sequencing kits such

as the ABI PRISM BIGDYE cycle sequencing kit (PE Biosystems). Electrophoretic separation of cDNA sequencing reactions and detection of labeled polynucleotides were carried out using the MEGABACE 1000 DNA sequencing system (Amersham Pharmacia Biotech); the ABI PRISM 373 or 377 sequencing system (PE Biosystems) in conjunction with standard ABI protocols and base calling software; or other sequence analysis systems known in the art. Reading frames within the cDNA sequences were identified using standard methods (reviewed in Ausubel, supra, Unit 7.7).

III. Extension of cDNA Sequences

Nucleic acid sequences were extended using Incyte cDNA clones and oligonucleotide primers. One primer was synthesized to initiate 5' extension of the known fragment, and the other, to initiate 3' extension of the known fragment. The initial primers were designed using OLIGO 4.06 software (National Biosciences), or another appropriate program, to be about 22 to 30 nucleotides in length, to have a GC content of about 50% or more, and to anneal to the target sequence at temperatures of about 68°C to about 72°C. Any stretch of nucleotides which would result in hairpin structures and primer-primer dimerizations was avoided.

Selected human cDNA libraries were used to extend the sequence. If more than one extension was necessary or desired, additional or nested sets of primers were designed. Preferred libraries are ones that have been size-selected to include larger cDNAs. Also, random primed libraries are preferred because they will contain more sequences with the 5' and upstream regions of genes. A randomly primed library is particularly useful if an oligo d(T) library does not yield a full-length cDNA.

High fidelity amplification was obtained by PCR using methods well known in the art. PCR was performed in 96-well plates using the DNA ENGINE thermal cycler (PTC-200; MJ Research). The reaction mix contained DNA template, 200 nmol of each primer, reaction buffer containing Mg^{2+}, $(NH_4)_2SO_4$, and β-mercaptoethanol, Taq DNA polymerase (Amersham Pharmacia Biotech), ELONGASE enzyme (Life Technologies), and Pfu DNA polymerase (Stratagene), with the following parameters for primer pair PCI A and PCI B (Incyte Pharmaceuticals): Step 1: 94°C, 3 min; Step 2: 94°C, 15 sec; Step 3: 60°C, 1 min; Step 4: 68°C, 2 min; Step 5: Steps 2, 3, and 4 repeated 20 times; Step 6: 68°C, 5 min; Step 7: storage at 4°C. In the alternative, the parameters for primer pair T7 and SK+ (Stratagene) were as follows: Step 1: 94°C, 3 min; Step 2: 94°C, 15 sec; Step 3: 57°C, 1 min; Step 4: 68°C, 2 min; Step 5: Steps 2, 3, and 4 repeated 20 times; Step 6: 68°C, 5 min; Step 7: storage at 4°C.

The concentration of DNA in each well was determined by dispensing 100 µl PICOGREEN reagent (Molecular Probes; 0.25% reagent in 1x TE, v/v) and 0.5 µl of undiluted PCR product into each well of an opaque fluorimeter plate (Corning Costar, Acton MA) and allowing the DNA to bind to the reagent. The plate was scanned in a Fluoroskan II (Labsystems Oy) to measure the fluorescence of the sample and to

quantify the concentration of DNA. A 5 μl to 10 μl aliquot of the reaction mixture was analyzed by electrophoresis on a 1% agarose mini-gel to determine which reactions were successful in extending the sequence.

The extended nucleic acids were desalted and concentrated, transferred to 384-well plates, digested with CviJI cholera virus endonuclease (Molecular Biology Research, Madison WI), and sonicated or sheared prior to religation into pUC18 vector (Amersham Pharmacia Biotech). For shotgun sequencing, the digested nucleic acids were separated on low concentration (0.6 to 0.8%) agarose gels, fragments were excised, and agar digested with AGARACE enzyme (Promega). Extended clones were religated using T4 DNA ligase (New England Biolabs, Beverly MA) into pUC18 vector (Amersham Pharmacia Biotech), treated with Pfu DNA polymerase (Stratagene) to fill-in restriction site overhangs, and transfected into competent *E. coli* cells. Transformed cells were selected on antibiotic-containing media, and individual colonies were picked and cultured overnight at 37°C in 384-well plates in LB/2x carbenicillin liquid media.

The cells were lysed, and DNA was amplified by PCR using Taq DNA polymerase (Amersham Pharmacia Biotech) and Pfu DNA polymerase (Stratagene) with the following parameters: Step 1: 94°C, 3 min; Step 2: 94°C, 15 sec; Step 3: 60°C, 1 min; Step 4: 72°C, 2 min; Step 5: steps 2, 3, and 4 repeated 29 times; Step 6: 72°C, 5 min; Step 7: storage at 4°C. DNA was quantified using PICOGREEN reagent (Molecular Probes) as described above. Samples with low DNA recoveries were reamplified using the same conditions described above. Samples were diluted with 20% dimethylsulfoxide (DMSO; 1:2, v/v), and sequenced using DYENAMIC energy transfer sequencing primers and the DYENAMIC DIRECT cycle sequencing kit (Amersham Pharmacia Biotech) or the ABI PRISM BIGDYE terminator cycle sequencing kit (PE Biosystems).

IV. Assembly and Analysis of Sequences

Component nucleotide sequences from chromatograms were subjected to PHRED analysis (Phil's Revised Editing Program; Phil Green, University of Washington, Seattle WA) and assigned a quality score. The sequences having at least a required quality score were subject to various pre-processing algorithms to eliminate low quality 3' ends, vector and linker sequences, polyA tails, Alu repeats, mitochondrial and ribosomal sequences, bacterial contamination sequences, and sequences smaller than 50 base pairs. Sequences were screened using the BLOCK 2 program (Incyte Pharmaceuticals), a motif analysis program based on sequence information contained in the SWISS-PROT and PROSITE databases (Bairoch et al. (1997) Nucleic Acids Res. 25:217-221; Attwood et al. (1997) J. Chem. Inf. Comput. Sci. 37:417-424).

Processed sequences were subjected to assembly procedures in which the sequences were assigned to bins, one sequence per bin. Sequences in each bin were assembled to produce consensus sequences,

templates. Subsequent new sequences were added to existing bins using the Basic Local Alignment Search Tool (BLAST; Altschul (1993) J. Mol. Evol. 36:290-300; Altschul et al. (1990) J. Mol. Biol. 215:403-410; Karlin et al. (1988) Proc. Natl. Acad. Sci. 85:841-845), BLASTn (v.1.4, WashU), and CROSSMATCH software (Phil Green, supra). Candidate pairs were identified as all BLAST hits having a quality score greater than or equal to 150. Alignments of at least 82% local identity were accepted into the bin. The component sequences from each bin were assembled using PHRAP (Phil's Revised Alignment Program; Phil Green, supra). Bins with several overlapping component sequences were assembled using DEEP PHRAP (Phil Green, supra).

Bins were compared against each other, and those having local similarity of at least 82% were combined and reassembled. Reassembled bins having templates of insufficient overlap (less than 95% local identity) were re-split. Assembled templates were also subjected to analysis by STITCHER/EXON MAPPER algorithms which analyzed the probabilities of the presence of splice variants, alternatively spliced exons, splice junctions, differential expression of alternative spliced genes across tissue types, disease states, and the like. These resulting bins were subjected to several rounds of the above assembly procedures to generate the template sequences found in the LIFESEQ GOLD database (Incyte Pharmaceuticals).

The assembled templates were annotated using the following procedure. Template sequences were analyzed using BLASTn (v2.0, NCBI) versus GBpri (GenBank version 109). "Hits" were defined as an exact match having from 95% local identity over 200 base pairs through 100% local identity over 100 base pairs, or a homolog match having an E-value of $\leq 1 \times 10^{-8}$. The hits were subjected to frameshift FASTx versus GENPEPT (GenBank version 109). In this analysis, a homolog match was defined as having an E-value of $\leq 1 \times 10^{-8}$. The assembly method used above was described in "Database and System for Storing, Comparing and Displaying Related Biomolecular Sequence Information," U.S.S.N. 09/276,534, filed March 25, 1999, incorporated by reference herein, and the LIFESEQ GOLD user manual (Incyte Pharmaceuticals).

Following assembly, template sequences were subjected to motif, BLAST, Hidden Markov Model (HMM; Pearson and Lipman (1988) Proc. Natl. Acad. Sci. 85:2444-2448; Smith and Waterman (1981) J. Mol. Biol. 147:195-197), and functional analyses, and categorized in protein hierarchies using methods described in "Database System Employing Protein Function Hierarchies for Viewing Biomolecular Sequence Data," U.S.S.N. 08/812,290, filed March 6, 1997; "Relational Database for Storing Biomolecule Information," U.S.S.N. 08/947,845, filed October 9, 1997; "Project-Based Full-Length Biomolecular Sequence Database," U.S.P.N. 5,953,727;; and "Relational Database and System for Storing Information Relating to Biomolecular Sequences," U.S.S.N. 09/034,807, filed March 4, 1998, all of which are incorporated by reference herein. Template sequences may be further queried against public databases such

as the GenBank rodent, mammalian, vertebrate, eukaryote, prokaryote, and human EST databases.

V. Preparation of Microarrays

The polynucleotides present on the human GENEALBUM GEM series 1-6 microarrays (Incyte Pharmaceuticals) represent template sequences derived from the LIFESEQ GOLD assembled human sequence database (Incyte Pharmaceuticals). In cases where more than one clone was available for a particular template, the 5'-most clone in the template was used on the microarray. Polynucleotides were amplified from bacterial cells using primers complementary to vector sequences flanking the cDNA insert. Thirty cycles of PCR increased the initial quantity of polynucleotide from 1-2 ng to a final quantity greater than 5 μg . Amplified polynucleotides were then purified using SEPHACRYL-400 columns (Amersham Pharmacia Biotech).

Purified polynucleotides were immobilized on polymer-coated glass slides. Glass microscope slides (Corning, Corning NY) were cleaned by ultrasound in 0.1% SDS and acetone, with extensive distilled water washes between and after treatments. Glass slides were etched in 4% hydrofluoric acid (VWR Scientific Products Corporation, West Chester PA), washed extensively in distilled water, and coated with 0.05% aminopropyl silane (Sigma, St. Louis MO) in 95% ethanol. Coated slides were cured in a 110°C oven. polynucleotides were applied to the coated glass substrate using a procedure described in U.S.P.N. 5,807,522, incorporated herein by reference. One microliter of the polynucleotide at an average concentration of 100 ng/ul was loaded into the open capillary printing element by a high-speed robotic apparatus which then deposited about 5 nl of polynucleotide per slide.

Microarrays were UV-crosslinked using a STRATALINKER UV-crosslinker (Stratagene), and then washed at room temperature once in 0.2% SDS and three times in distilled water. Non-specific binding sites were blocked by incubation of microarrays in 0.2% casein in phosphate buffered saline (Tropix, Bedford MA) for 30 minutes at 60°C followed by washes in 0.2% SDS and distilled water as before.

VI. Preparation of Target Polynucleotides

Cytokine treatment of PBMCs

Peripheral blood mononuclear cells (PBMCs) were isolated from freshly obtained peripheral blood of two healthy donors by centrifugation of the lymphocyte enriched blood fraction over a HYPAQUE ficoll gradient (Sigma). The isolated PBMCs were grown in Yssel's media (Yssel (1984) J. Immunol. Methods 72:219-225) supplemented with 1% pooled type AB human serum. About 2 x 10^7 PBMCs from each donor were treated with Group A (pro-inflammatory) cytokines for two hours at 37°C, at the following concentrations: IL-1β at 10ng/ml (R&D Systems, Minneapolis MN); IL-2 at 10 ng/ml (R&D Systems); IL-6 at 10 ng/ml (R&D Systems); IL-8 at 10 ng/ml (R&D Systems); IL-12 at 1 ng/ml (R&D Systems); IL-18 at 10

ng/ml (Peprotech, Inc., Rockyhill NJ); TNFα at 10 ng/ml (R&D Systems); and IFNγ at 50 ng/ml (R&D Systems). Similarly, 2 x 10^7 PBMCs from each donor were treated with Group B (anti-inflammatory) cytokines for two hours at 37°C, using the following concentrations: IL-3 at 10 ng/ml (R&D Systems); IL-4 at 10 ng/ml (R&D Systems); IL-5 at 10 ng/ml (R&D Systems); IL-7 at 10 ng/ml (R&D Systems); IL-10 at 50 ng/ml (R&D Systems); LIF at 20 ng/ml (R&D Systems); GM-CSF at 10 ng/ml (R&D Systems); G-CSF at 100 ng/ml (R&D Systems); TGFβ at 10 ng/ml (R&D Systems); and leptin at 100 nM (Peprotech). Approximately 1 x 10^8 PBMCs from each donor were untreated controls.

Isolation and Labeling of Target Polynucleotides

Cells were harvested and lysed in TRIZOL reagent (5 x 10^6 cells/1 ml; Life Technologies). Cell lysates were vortexed, incubated at room temperature for 2-3 minutes, and extracted with 0.5 ml chloroform. The extract was mixed, incubated at room temperature for 5 minutes, and centrifuged at 16,000g for 15 minutes at 4°C. The aqueous layer was collected and an equal volume of isopropanol was added. Samples were mixed, incubated at room temperature for 10 minutes, and centrifuged at 16,000g for 20 minutes at 4°C. The supernatant was removed and the RNA pellet was washed with 70% ethanol, centrifuged at 16,000g at 4°C, and resuspended in RNase-free water. The concentration of RNA was determined by measuring the optical density at 260 nm.

Poly(A) RNA was prepared using an OLIGOTEX mRNA kit (QIAGEN) with the following modifications: OLIGOTEX beads were washed in tubes instead of on spin columns, resuspended in elution buffer, and then loaded onto spin columns to recover mRNA. To obtain maximum yield, the mRNA was eluted twice. Each poly(A) RNA sample was reverse transcribed using MMLV reverse-transcriptase, 0.05 pg/μl oligo-dT primer (21mer), 1x first strand buffer, 0.03 units/ul RNase inhibitor, 500 uM dATP, 500 uM dGTP, 500 uM dTTP, 40 uM dCTP, and 40 uM either dCTP-Cy3 or dCTP-Cy5 (Amersham Pharmacia Biotech). The reverse transcription reaction was performed in a 25 ml volume containing 200 ng poly(A) RNA using the GEMBRIGHT kit (Incyte Pharmaceuticals). Specific control poly(A) RNAs (YCFR06, YCFR45, YCFR67, YCFR85, YCFR43, YCFR22, YCFR23, YCFR25, YCFR44, YCFR26) were synthesized by in vitro transcription from non-coding yeast genomic DNA (W. Lei, unpublished). As quantitative controls, control mRNAs (YCFR06, YCFR45, YCFR67, and YCFR85) at 0.002ng, 0.02ng, 0.2 ng, and 2ng were diluted into reverse transcription reaction at ratios of 1:100,000, 1:10,000, 1:1000, 1:100 (w/w) to sample mRNA, respectively. To sample differential expression patterns, control mRNAs (YCFR43, YCFR22, YCFR23, YCFR25, YCFR44, YCFR26) were diluted into reverse transcription reaction at ratios of 1:3, 3:1, 1:10, 10:1, 1:25, 25:1 (w/w) to sample mRNA. Reactions were incubated at 37°C for 2 hr, treated with 2.5 ml of 0.5M sodium hydroxide, and incubated for 20 minutes at 85°C to the stop the reaction and

degrade the RNA.

Targets were purified using two successive CHROMA SPIN 30 gel filtration spin columns (CLONTECH). Cy3- and Cy5-labeled reaction samples were combined as described below and ethanol precipitated using 1 ml of glycogen (1 mg/ml), 60 ml sodium acetate, and 300 ml of 100% ethanol. The target was then dried to completion using a SpeedVAC system (Savant Instruments Inc., Holbrook NY) and resuspended in 14 µl 5X SSC/0.2% SDS.

VII. Hybridization and Detection

Hybridization reactions contained 9 µl of target mixture consisting of 0.2 µg each of Cy3 and Cy5 labeled cDNA synthesis products in 5X SSC, 0.2% SDS hybridization buffer. The targets were assigned the following designations: a) a control experiment where the Cy3 and Cy5 targets were cDNA from untreated PBMCs; b) Cy3 was cDNA from untreated PBMCs and Cy5 was cDNA from Group A treated PBMCs; and c) Cy3 was cDNA from untreated PBMCs and Cy5 was cDNA from Group B treated PBMCs. The target mixture was heated to 65°C for 5 minutes and was aliquoted onto the microarray surface and covered with an 1.8 cm^2 coverslip. The microarrays were transferred to a waterproof chamber having a cavity just slightly larger than a microscope slide. The chamber was kept at 100% humidity internally by the addition of 140 µl of 5x SSC in a corner of the chamber. The chamber containing the microarrays was incubated for about 6.5 hours at 60°C. The microarrays were washed for 10 min at 45°C in low stringency wash buffer (1x SSC, 0.1% SDS), three times for 10 minutes each at 45°C in high stringency wash buffer (0.1x SSC), and dried.

Detection

Reporter-labeled hybridization complexes were detected with a microscope equipped with an Innova 70 mixed gas 10 W laser (Coherent, Inc., Santa Clara CA) capable of generating spectral lines at 488 nm for excitation of Cy3 and at 632 nm for excitation of Cy5. The excitation laser light was focused on the microarray using a 20X microscope objective (Nikon, Inc., Melville NY). The slide containing the microarray was placed on a computer-controlled X-Y stage on the microscope and raster-scanned past the objective. The 1.8 cm x 1.8 cm microarray used in the present example was scanned with a resolution of 20 micrometers.

In two separate scans, the mixed gas multiline laser excited the two fluorophores sequentially. Emitted light was split, based on wavelength, into two photomultiplier tube detectors (PMT R1477; Hamamatsu Photonics Systems, Bridgewater NJ) corresponding to the two fluorophores. Appropriate filters positioned between the microarray and the photomultiplier tubes were used to filter the signals. The emission maxima of the fluorophores used were 565 nm for Cy3 and 650 nm for Cy5. Each microarray was typically scanned twice, one scan per fluorophore using the appropriate filters at the laser source, although the

apparatus was capable of recording the spectra from both fluorophores simultaneously.

The sensitivity of the scans was calibrated using the signal intensity generated by a cDNA control species. Samples of the calibrating cDNA were separately labeled with the two fluorophores and identical amounts of each were added to the hybridization mixture. A specific location on the microarray contained a complementary DNA sequence, allowing the intensity of the signal at that location to be correlated with a weight ratio of hybridizing species of 1:100,000.

The output of the photomultiplier tube was digitized using a 12-bit RTI-835H analog-to-digital (A/D) conversion board (Analog Devices, Inc., Norwood, MA) installed in an IBM-compatible PC computer. The digitized data were displayed as an image where the signal intensity was mapped using a linear 20-color transformation to a pseudocolor scale ranging from blue (low signal) to red (high signal). The data was also analyzed quantitatively. Where two different fluorophores were excited and measured simultaneously, the data were first corrected for optical crosstalk (due to overlapping emission spectra) between the fluorophores using each fluorophore's emission spectrum.

A grid was superimposed over the fluorescence signal image such that the signal from each spot was centered in each element of the grid. The fluorescence signal within each element was then integrated to obtain a numerical value corresponding to the average intensity of the signal. The software used for signal analysis was the GEMTOOLS gene expression analysis program (Incyte Pharmaceuticals).

VIII. Data Analysis and Results

Genes which exhibited a ≥2-fold change in expression in cytokine-treated vs untreated controls and displayed a signal intensity over 300 were identified using the GEMTOOLS program (Incyte Pharmaceuticals). The polynucleotides comprising SEQ ID NOs:1-516 as presented in the Sequence Listing showed at least a 2-fold change in expression in response to pro-inflammatory cytokines, anti-inflammatory cytokines, or both pro-and anti-inflammatory cytokines. Comparisons of expression between two different cytokine pools allowed the identification of genes useful in diagnosing a condition associated with pro-inflammatory response such as organ-specific autoimmune disorders including insulin-dependent diabetes mellitus, multiple sclerosis, rheumatoid arthritis, Crohn's disease and pemphigus vulgaris; anti-inflammatory response such as bacterial and parasitic infections, allergies and other atopic disorders, transplantation tolerance, chronic graft versus host disease, and sytemic autoimmune disease including systemic lupus erythematosus; or an immune response encompassing characteristics of both pro- and anti-inflammatory response.

Tables 1-4 represent various combinations of the polynucleotides of SEQ ID Nos:1-516 that were up or down regulated at least 2-fold in PBMCs in response to human cytokines. Since the polynucleotides were

identified solely based on differential expression in cytokine-treated versus untreated tissue, it is not essential to know a priori the name, structure, or function of a particular gene or protein. The usefulness of the human sequences exists in their immediate value as diagnostics for immune response and immune disorders.

In tables 1-3, columns 1 and 2 list the SEQ ID NO and Incyte clone number, respectively, for the polynucleotides of the invention. Columns 3 and 4 indicate the differential expression of the gene measured at the end of the experiment for pro- and anti-inflammatory cytokine treatment, respectively. Differential expression values are reported as $\log_n$ [control (untreated) ÷ cytokine-treated]. A value of -1 indicates a 2-fold increase in expression in response to cytokine treatment.

Table 1 lists novel polynucleotides differentially regulated at least 2-fold in response to both pro- and anti-inflammatory cytokines. These genes are associated with the general response of PBMCs to signals from the immune system and the infective process.

Table 2 lists novel polynucleotides differentially regulated at least 2-fold in response to pro-inflammatory cytokines. These genes reflect the response of PBMCs to the mileau of cytokines released during inflammation and represent potentially useful markers for viral infections and autoimmune disorders.

Table 3 lists novel polynucleotides differentially regulated at least 2-fold in response to anti-inflammatory cytokines. These genes reflect the response of PBMCs to the mileau of cytokines released in opposition of an inflammatory response and represent potentially useful markers for bacterial and parasitic infections and allergic response.

Table 4 lists known polynucleotides differentially regulated at least 2-fold in response to pro-inflammatory cytokines, anti-inflammatory cytokines, or both pro- and anti-inflammatory cytokines. Some genes identified in table 4, such as the p53 binding protein 53BP2, IFN-γ accessory factor AF-1, and IL-2 receptor, were previously known to be modulated by cytokines. Other genes identified in table 4, such as thrombomodulin, the mucin-like hormone receptor EMR1, and the LIM protein ESP1/CRP2, were not previously known to be modulated by cytokines. Columns 1 and 2 list the SEQ ID NO and Incyte clone ID, respectively, for the polynucleotides of the invention. Column 3 provides a description of the gene. Sequences not identified by BLAST are indicated as "Incyte EST". Columns 4 and 5 show the GenBank ID and corresponding GenBank 113 database, respectively, of the closest homolog identified by BLAST. Columns 6 and 7 indicate the differential expression of the gene measured at the end of the experiment for pro- and anti-inflammatory cytokine treatment, respectively. Differential expression values are reported as $\log_n$ [untreated ÷ cytokine-treated].

The polynucleotides of the Sequence Listing have been prepared by current, state-of-the-art, automated methods and, as such, may contain occasional sequencing errors or unidentified nucleotides. Such

unidentified nucleotides are designated by an 'n'. These infrequent unidentified bases do not represent a hindrance to practicing the invention for those skilled in the art. Several methods employing standard recombinant techniques may be used to correct errors and complete the missing sequence information. (See, e.g., those described in Ausubel et al. (1997) Short Protocols in Molecular Biology, John Wiley & Sons, New York NY; and Sambrook et al. (1989) Molecular Cloning, A Laboratory Manual, Cold Spring Harbor Press, Plainview NY.)

IX. Complementary Nucleic Acid Molecules

Molecules complementary to the polynucleotide or a fragment thereof are used to detect, decrease, or inhibit gene expression. Although use of oligonucleotides comprising from about 15 to about 30 base pairs is described, the same procedure is used with larger or smaller fragments or their derivatives (PNAs). Oligonucleotides are designed using vector NTI software (Informax, N. Bethesda MD) and SEQ ID NOs:1-516. To inhibit transcription by preventing promoter binding, a complementary oligonucleotide is designed to bind to the most unique 5' sequence, most preferably about 10 nucleotides before the initiation codon of the open reading frame. To inhibit translation, a complementary oligonucleotide is designed to prevent ribosomal binding to the mRNA encoding the protein.

X. Probe Preparation, Target Labeling, and Hybridization Analyses

Probe nucleic acid molecules are isolated and applied to a substrate for standard hybridization protocols by one of the following methods. A mixture of probes is fractionated by electrophoresis through an 0.7% agarose gel in 1x TAE [Tris-acetate-EDTA] running buffer and transferred to a nylon membrane by capillary transfer using 20x SSC. Alternatively, the probes are individually ligated to a vector and inserted into bacterial host cells to form a library. Probes are then arranged on a substrate by one of the following methods. In the first method, bacterial cells containing individual clones are robotically picked and arranged on a nylon membrane. The membrane is placed on bacterial growth medium, LB agar containing carbenicillin, and incubated at 37°C for 16 hours. Bacterial colonies are denatured, neutralized, and digested with proteinase K. Nylon membranes are exposed to UV irradiation in a STRATALINKER UV-crosslinker (Stratagene) to cross-link probe to the membrane.

In the second method, probes are amplified from bacterial vectors by thirty cycles of PCR using primers complementary to vector sequences flanking the insert. Amplified probes are purified using SEPHACRYL-400 beads (Amersham Pharmacia Biotech). Purified probes are robotically arrayed onto a glass microscope slide (Corning Science Products, Corning NY). The slide was previously coated with 0.05% aminopropyl silane (Sigma-Aldrich, St. Louis MO) and cured at 110°C. The arrayed glass slide (microarray) was exposed to UV irradiation in a STRATALINKER UV-crosslinker (Stratagene).

cDNA targets are made from mRNA templates. Five micrograms of mRNA is mixed with 1 μg random primer (Life Technologies), incubated at 70°C for 10 minutes, and lyophilized. The lyophilized sample is resuspended in 50 μl of 1x first strand buffer (cDNA Synthesis systems; Life Technologies) containing a dNTP mix, [α-^{32}P]dCTP, dithiothreitol, and MMLV reverse transcriptase (Stratagene), and incubated at 42°C for 1-2 hours. After incubation, the target is diluted with 42 μl dH_2O, heated to 95°C for 3 minutes, and cooled on ice. mRNA in the target is removed by alkaline degradation. The target is neutralized, and degraded mRNA and unincorporated nucleotides are removed using a PROBEQUANT G-50 microcolumn (Amersham Pharmacia Biotech). Targets can be labeled with fluorescent markers, Cy3-dCTP or Cy5-dCTP (Amersham Pharmacia Biotech), in place of the radionucleotide, [^{32}P]dCTP.

Hybridization is carried out at 65°C in a hybridization buffer containing 0.5 M sodium phosphate (pH 7.2), 7% SDS, and 1 mM EDTA. After the substrate is incubated in hybridization buffer at 65°C for at least 2 hours, the buffer is replaced with 10 ml of fresh buffer containing the targets. After incubation at 65°C for 18 hours, the hybridization buffer is removed, and the substrate is washed sequentially under increasingly stringent conditions, up to 40 mM sodium phosphate, 1% SDS, 1 mM EDTA at 65°C. To detect signal produced by a radiolabeled target hybridized on a membrane, the substrate is exposed to a PHOSPHORIMAGER cassette (Amersham Pharmacia Biotech), and the image is analyzed using IMAGEQUANT data analysis software (Amersham Pharmacia Biotech). To detect signals produced by a fluorescent target hybridized on a microarray, the substrate is examined by confocal laser microscopy, and images are collected and analyzed using GEMTOOLS gene expression analysis software (Incyte Pharmaceuticals).

XI. Expression of the Encoded Protein

Expression and purification of a protein encoded by a polynucleotide of the invention is achieved using bacterial or virus-based expression systems. For expression in bacteria, cDNA is subcloned into a vector containing an antibiotic resistance gene and an inducible promoter that directs high levels of cDNA transcription. Examples of such promoters include, but are not limited to, the *trp-lac* (*tac*) hybrid promoter and the T5 or T7 bacteriophage promoter in conjunction with the *lac* operator regulatory element. Recombinant vectors are transformed into bacterial hosts, such as BL21(DE3). Antibiotic resistant bacteria express the protein upon induction with isopropyl beta-D-thiogalactopyranoside (IPTG). Expression in eukaryotic cells is achieved by infecting Spodoptera frugiperda (Sf9) insect cells with recombinant baculovirus, Autographica californica nuclear polyhedrosis virus. The polyhedrin gene of baculovirus is replaced with the polynucleotide by either homologous recombination or bacterial-mediated transposition involving transfer plasmid intermediates. Viral infectivity is maintained and the strong polyhedrin promoter

drives high levels of polynucleotide transcription.

Protein is synthesized as a fusion protein with glutathione S-transferase (GST) permitting rapid, single-step, affinity-based purification of recombinant fusion protein from crude cell lysates. GST enables the purification of fusion proteins on immobilized glutathione under conditions that maintain protein activity and antigenicity (Amersham Pharmacia Biotech). Following purification, the GST moiety is proteolytically cleaved from the protein at specifically engineered sites.

XII. Production of Specific Antibodies

Protein encoded by a polynucleotide of the invention is purified using polyacrylamide gel electrophoresis and used to immunize mice or rabbits. Alternatively, the amino acid sequence of the protein is analyzed using LASERGENE software (DNASTAR) to determine regions of high immunogenicity. An immunogenic epitope near the C-terminus or in a hydrophilic region is selected, synthesized, and used to raise antibodies. Typically, epitopes of about 15 residues in length are produced using an ABI 431A peptide synthesizer (PE Biosystems) using Fmoc-chemistry and coupled to KLH (Sigma-Aldrich) by reaction with N-maleimidobenzoyl-N-hydroxysuccinimide ester to increase immunogenicity.

Rabbits are immunized with the epitope-KLH complex in complete Freund's adjuvant. Immunizations are repeated at intervals in incomplete Freund's adjuvant. After a minimum of seven weeks for mouse or twelve weeks for rabbit, antisera are drawn and tested for antipeptide activity. Testing involves binding the peptide to plastic, blocking with 1% bovine serum albumin, reacting with rabbit antisera, washing, and reacting with radio-iodinated goat anti-rabbit IgG. Antibody titer is then determined.

XIII. Purification of Naturally Occurring Protein Using Specific Antibodies

Naturally occurring or recombinant protein is substantially purified by immunoaffinity chromatography using antibodies specific for the protein. An immunoaffinity column is constructed by covalently coupling the antibody to CNBr-activated SEPHAROSE resin (Amersham Pharmacia Biotech). Media containing the protein is passed over the immunoaffinity column, and the column is washed using high ionic strength buffers in the presence of detergent to allow preferential absorbance of the protein. After coupling, the protein is eluted from the column using a buffer of pH 2-3 or a high concentration of urea or thiocyanate ion to disrupt antibody/protein binding, and the protein is collected.

XIV. Screening Molecules for Specific Binding with the Probe or Protein

The polynucleotide or fragments thereof are labeled with ^{32}P-dCTP, Cy3-dCTP, Cy5-dCTP (Amersham Pharmacia Biotech), or the protein or portions thereof are labeled with BIODIPY or FITC (Molecular Probes). Libraries of candidate molecules previously arranged on a substrate are incubated in the presence of labeled probe or protein. After incubation under conditions for either a nucleic acid or amino

acid sequence, the substrate is washed, and any position on the substrate retaining label, which indicates specific binding or complex formation, is assayed, and the binding molecule is identified. Data obtained using different concentrations of the probe or protein are used to calculate affinity between the labeled probe or protein and the bound molecule.

All publications and patents mentioned in the above specification are herein incorporated by reference. Various modifications and variations of the described method and system of the invention will be apparent to those skilled in the art without departing from the scope and spirit of the invention. Although the invention has been described in connection with specific preferred embodiments, it should be understood that the invention as claimed should not be unduly limited to such specific embodiments. Indeed, various modifications of the above-described modes for carrying out the invention which are obvious to those skilled in the field of molecular biology or related fields are intended to be within the scope of the following claims.

CLAIMS

What is claimed is:

1. A composition comprising a plurality of polynucleotides whose expression is modulated by cytokines, wherein the polynucleotides comprise SEQ ID NOs:1-516 or a complement thereof.

2. A substantially purified polynucleotide whose expression is modulated by cytokines comprising at least a fragment of a gene selected from SEQ ID NOs:1-243 or a complement thereof.

3. The polynucleotide of claim 2 whose expression is modulated by pro-inflammatory and anti-inflammatory cytokines, wherein the polynucleotide is selected from SEQ ID NOs:1-172 or a complement thereof.

4. The polynucleotide of claim 2 whose expression is modulated by pro-inflammatory cytokines, wherein the polynucleotide is selected from SEQ ID NOs:173-218 or a complement thereof.

5. The polynucleotide of claim 2 whose expression is modulated by anti-inflammatory cytokines, wherein the polynucleotide is selected from SEQ ID NOs:219-243 or a complement thereof.

6. The composition of claim 1, wherein the polynucleotides are immobilized on a substrate.

7. A high throughput method for detecting a polynucleotide in a sample, the method comprising:

(a) hybridizing the composition of claim 1 with the sample, thereby forming hybridization complex; and

(b) detecting the hybridization complex, wherein the presence of the hybridization complex indicates the presence of the polynucleotide in the sample.

8. A high throughput method of screening a library of molecules or compounds to identify a ligand, the method comprising:

(a) combining the composition of claim 1 with a library of molecules or compounds under conditions to allow specific binding; and

(b) detecting specific binding, thereby identifying a ligand.

9. The method of claim 8 wherein the library is selected from DNA molecules, RNA molecules, peptide nucleic acids, mimetics, peptides, and proteins.

10. A method of purifying ligands, the method comprising:

a) combining the polynucleotide of claim 2 with a sample under conditions which allow specific binding;

b) recovering the bound polynucleotide, and

c) separating the polynucleotide from the ligand, thereby obtaining purified ligand.

11. An expression vector containing the polynucleotide of claim 2.

12. A host cell containing the expression vector of claim 11.

13. A method for producing a protein, the method comprising the steps of:

(a) culturing the host cell of claim11 under conditions for the expression of protein; and

(b) recovering the protein from the host cell culture.

14. A protein or a portion thereof produced by the method of claim 13.

15. A method for screening a library of molecules or compounds to identify at least one ligand which specifically binds a protein, the method comprising:

(a) combining the protein or a portion thereof of claim 14 with the library of molecules or compounds under conditions to allow specific binding; and

(b) detecting specific binding, thereby identifying a ligand which specifically binds the protein.

16. The method of claim 15 wherein the library is selected from DNA molecules, RNA molecules, PNAs, mimetics, peptides, proteins, agonists, antagonists, antibodies or their fragments, immunoglobulins, inhibitors, drug compounds, and pharmaceutical agents.

17. A method of purifying a ligand, the method comprising:

a) combining the protein or a portion thereof of claim 14 with a sample under conditions to allow specific binding;

b) recovering the bound protein; and

c) separating the protein from the ligand, thereby obtaining purified ligand.

18. A method of screening a sample from a patient for an immune response, disorder, condition, or disease, the method comprising:

a) contacting the sample with the composition of claim 1 immobilized on a substrate under conditions to allow formation of a hybridization complex;

b) detecting and quantifying complex formation; and

c) comparing complex formation with a standard, wherein a change complex formation indicates the presence of the immune disorder, condition, or disease.

19. The method of claim 18, wherein the immune disorder, condition, or disease is a pro-inflammatory disorder selected from viral infections, rheumatoid arthritis, insulin-dependent diabetes mellitus, multiple sclerosis, encephalomyelitis, inflammatory bowel disease, psoriasis, and pemphigus vulgaris.

20. The method of claim 18, wherein the immune system disorder, condition, or disease is an anti-inflammatory disorder selected from bacterial and parasitic infections, allergies and other atopic disorders, chronic graft versus host disease, scleroderma, and systemic lupus erythematosus.

ABSTRACT OF THE DISCLOSURE

The present invention relates to purified polynucleotides and a composition comprising a plurality of polynucleotide probes that are modulated in response to cytokines and which are associated with human immune response, conditions, disorders, and diseases . The present invention presents methods for using the polynucleotides, and use of the polynucleotide probes as hybridizable elements in a microarray.

TABLE 1

SEQ ID NO:	Incyte ID	Ct/A	Ct/B
1	068454H1	-3.69	-2.56
2	153958T6	-2.93	-2.63
3	155870R6	-4.06	-1.58
4	182228R6	-1.96	-1.2
5	259836T6	-2.04	-1.43
6	304934T6	-1.38	-1.63
7	308002T6	-1.54	-1.14
8	354516T6	-1.68	-1.43
9	358832T6	-1.58	-2.43
10	392560T6	-1.32	-1.54
11	395368T6	-2.56	-2.41
12	397122T6	-3.54	-1.58
13	443631T6	-1.14	-1.58
14	445246T6	-1.68	-1.26
15	460790T6	-2.68	-2.89
16	466711T6	-1.43	-1.2
17	474962T6	-1.2	-1.43
18	495945T6	-1.77	-1
19	498549T6	-2.1	-1.26
20	504202T6	-2.48	-2.35
21	510950T6	-2.35	-2.14
22	516616T6	-1.32	-1.63
23	519083T6	-2.56	-1.68
24	567572T6	-1.32	-1.72
25	633724T6	-1.38	-1.85
26	666761R6	-1.38	-1.26
27	709070T6	-2.07	-1.54
28	993224T6	-1.54	-1.2
29	1234795H1	-1.68	-1.81
30	1274557F6	-2.17	-1.43
31	1304655F6	-1.32	-1.26
32	1318881T6	-1.58	-1.43
33	1404348T6	-1.96	-2
34	1415624T6	-1.77	-1.81
35	1437809T6	-1.43	-1.38
36	1438157T6	-1.63	-1.26
37	1439529T6	-1.54	-1.81
38	1454203T6	-1.14	-1.38
39	1479279F6	-1.14	-1.68
40	1487763T6	-1.68	-1.26
41	1508830T6	-1.81	-1.63
42	1510668F6	-1.07	-1.81
43	1557279F6	-2.74	-3.1
44	1561237T6	-1.68	-1.72
45	1562722T6	-2.94	-2.14
46	1629481T6	-1.49	-1.32
47	1638102F6	-1.96	-1.26
48	1643115H1	-1.93	-1.07

TABLE 1

SEQ ID NO:	Incyte ID	Ct/A	Ct/B
49	1647985T6	-2.38	-3.05
50	1648034F6	-2.17	-2.23
51	1674289T6	-2.51	-1.72
52	1685691T6	-1.54	-1.89
53	1693719T6	-1.58	-1.72
54	1695667F6	-1.58	-1.43
55	1704982T6	-2.23	-1.49
56	1713873T6	-1.96	-2.2
57	1755881F6	-1.85	-1.85
58	1801605T6	-3.14	-2.26
59	1809609T6	-1.54	-1.14
60	1851506T6	-2.2	-1.54
61	1856531T6	-1.58	-1.68
62	1873492T6	-1.72	-2.29
63	1879193T6	-1.20	-1.58
64	1880542T6	-1.89	-1.07
65	1880666F6	-1.32	-1.38
66	1881257T6	-1.43	-1.2
67	1900194T6	-1.72	-2.51
68	1908377F6	-2.07	-1.38
69	1909861F6	-1.2	-1.49
70	1911715T6	-1.14	-1.96
71	1930135F6	-1.2	-1.81
72	1943678T6	-2.32	-2.14
73	1963968T6	-1.38	-1.2
74	1973066T6	-2.1	-2.43
75	2016488T6	-2.14	-1.89
76	2025468T6	-1.89	-1.72
77	2054867T6	-1.58	-1.32
78	2073909T6	-2.56	-1.72
79	2102771T6	-2.29	-2.04
80	2121554T6	-2.38	-2.1
81	2134473T6	-1.43	-1.77
82	2208881T6	-2.1	-1.81
83	2211623T6	-1.68	-1.32
84	2216715F6	-3.02	-2.87
85	2239116F6	-1.32	-1.32
86	2242596F6	-2.1	-1.14
87	2264984T6	-1.14	-1.96
88	2299164R6	-1.38	-1.38
89	2299181R6	-3.56	-2.63
90	2328025T6	-1.43	-1.68
91	2370487T6	-1.58	-1.32
92	2376728T6	-2.04	-1.68
93	2478811F6	-1.32	-1.2
94	2486153T6	-1	-1.68
95	2493520T6	-1.85	-1.14
96	2514029T6	-2	-2.23

TABLE 1

SEQ ID NO:	Incyte ID	Ct/A	Ct/B
97	2518676F6	-1.96	-1.54
98	2545961F7	-2.54	-1.89
99	2547841T6	-2.7	-2.1
100	2578906T6	-1.85	-1.32
101	2591681T6	-1.32	-1.26
102	2591814T6	-1.63	-2.07
103	2601127T6	1.89	1.68
104	2603774T6	-1.14	-1.63
105	2630834F6	-1.49	-1
106	2655030T6	-1.38	-1.2
107	2672695T6	-1.2	-1.38
108	2693989T6	-1.85	-2
109	2718743F6	-1.14	-1.63
110	2721122H1	1.54	1.43
111	2735638T6	-1.43	-1.58
112	2739124T6	-1.32	-1.2
113	2747213T6	-1.43	-1.54
114	2752482R6	-1.63	-1.43
115	2757678R6	-1.26	-1.32
116	2765789T6	-2	-2.17
117	2784742T6	-2	-2.04
118	2786881F6	-1.14	-1.43
119	2790863T6	-1.58	-1
120	2799276T6	-1.49	-1
121	2801448F6	-1.58	-1.07
122	2827489F7	-2	1.07
123	2833430F6	-1.54	-1.77
124	2833844T6	-1.96	-2.14
125	2835032T6	-1.26	-1.32
126	2838139F6	-2.23	-1.14
127	2838241T6	-1.81	-1.43
128	2838993T6	-1.49	-1.85
129	2849791H1	-3.34	-1.93
130	2858295T6	-2.74	-2.66
131	2932975R6	-1.81	-2.14
132	2965657T6	-1.72	-2.63
133	2967286T6	-1.77	-1.81
134	2994210T6	-1.07	-1.68
135	2996094F6	-2	-1.43
136	3000067T6	-1	-2.04
137	3116117T6	-1.49	-1.54
138	3119119F6	-1.43	-1.77
139	3151807R6	-1.38	-1.26
140	3208407H1	-1.63	-1.32
141	3211415T6	-2.26	-1.07
142	3238201T6	-2.14	-1.38
143	3254006R6	-1.38	-1.58
144	3255002T6	-1.2	-1.58

TABLE 1

SEQ ID NO:	Incyte ID	Ct/A	Ct/B
145	3323143T6	-2.1	-2.32
146	3365533T6	-1.38	-1.26
147	3421032T6	-1.07	-1.68
148	3425501F6	-1.07	-1.96
149	3434684T6	-2	-1.38
150	3471751T6	-1.43	-2.04
151	3475326T6	-1.00	-1.54
152	3480489F6	-1.26	-1.54
153	3559834F6	-3.26	-2.77
154	3562407F6	-1.38	-1.38
155	3586531F6	-2.07	-2.00
156	3685559T6	-1.43	-1.93
157	3738958T6	-1.49	-2.2
158	3809571F6	-1.72	-1.2
159	3817414T6	-1.26	-1.85
160	3875548T6	-1.2	-1.58
161	3992126R6	-1.32	-1.81
162	342907T6	2.23	1.96
163	462533R6	1.77	1.14
164	1554666T6	1.43	1.07
165	1872410F6	2.1	1.54
166	1991934F6	1.43	1.38
167	2264271T6	1.26	1.26
168	2374921T6	1.63	1.54
169	2530696T6	1.85	1.49
170	3092415T6	1.63	1.63
171	3092627T6	2.46	2.23
172	3602715F6	2.56	2.70

TABLE 2

SEQ ID NO:	Incyte ID	Ct/A	Ct/B
173	1879094F6	-3.56	0.14
174	3735627T6	-3.28	-0.93
175	1958331F6	-3.26	-0.85
176	3234716T6	-2.74	-0.93
177	2707709T6	-2.61	-0.38
178	3111091F6	-2.61	0
179	1352487T6	-2.58	-0.68
180	1361439T6	-2.43	0.26
181	1214059T6	-2.35	-0.38
182	182609R6	-2.29	-0.77
183	1930329T6	-2.29	-0.14
184	927117R6	-2.2	-0.68
185	2859369T6	-2.2	-0.48
186	1554387T6	-2.1	0
187	503030T6	-2.07	-0.38
188	2058709T6	-2	-0.68
189	3988515T6	-2	-0.38
190	2888859T6	-1.96	-0.14
191	3169474T6	-1.96	-0.68
192	1865880F6	-1.96	-0.38
193	1440669F6	-1.89	-0.68
194	2995031F6	-1.89	-0.14
195	667705T6	-1.85	-0.68
196	2808826T6	-1.81	-0.26
197	2841974T6	-1.77	-0.58
198	3175296T6	-1.77	-0.77
199	693452R6	-1.68	-0.93
200	2203194T6	-1.68	-0.14
201	2231176T6	-1.68	-0.68
202	2370457T6	-1.68	0
203	2379695T6	-1.68	0
204	2503204T6	-1.68	-0.93
205	1849962H1	-1.63	-0.85
206	2078863F6	-1.63	-0.48
207	3218325H1	-1.63	-0.49
208	2927175T6	-1.58	-0.93
209	1997874T6	-1.58	-0.58
210	2660871T6	-1.58	-0.58
211	2907049T6	-1.58	-0.85
212	3149004R6	-1.54	0.38
213	3269702H1	-1.49	-0.93
214	1929661T6	1.68	-0.14
215	2709044T6	1.77	-1.14
216	3254777T6	1.85	0.14
217	1452827T6	1.93	-0.26
218	3325383T6	2.1	0.26

TABLE 3

SEQ ID NO:	Incyte ID	Ct/A	Ct/B
219	3220151T6	-0.49	-3.94
220	3809026T6	-0.38	-3.82
221	065498H1	-0.14	-3.52
222	1417323T6	-0.68	-2.87
223	2410888T6	0	-2.07
224	1552980T6	-0.58	-2
225	2507526T6	-0.77	-1.96
226	3258109R6	-0.68	-1.96
227	1306411F6	-0.48	-1.96
228	708018T6	-0.85	-1.89
229	1713038T6	-0.85	-1.89
230	2226878T6	-0.85	-1.89
231	3483069T6	-0.58	-1.85
232	405967T6	-0.85	-1.81
233	2783681F6	-0.93	-1.72
234	345673T6	-0.68	-1.68
235	2723202T6	-0.49	-1.63
236	3091058T6	0.14	-1.63
237	2762254T6	-0.77	-1.58
238	1501582T6	-0.77	-1.58
239	3282967T6	-0.58	-1.58
240	1966576H1	-0.14	-1.58
241	1859155T6	-0.85	-1.54
242	2652949F6	-0.93	-1.54
243	2589371T6	-0.93	-1.49

TABLE 4

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
244	1714938T6	Human chloride channel protein 3 (CLCN3)	g2599547	gbpri	-4.53	-4.19
245	2641714T6	Human mRNA for lectin-like oxidized LDL receptor, complete cds.	g2828355	gbpri	-4.88	-1.26
246	2842285T6	Human YAP65 mRNA.	g517176	gbpri	-4.8	-1.49
247	1376538T6	Human polyadenylate binding protein (TIA-1) mRNA, complete cds.	g339700	gbpri	-3.72	-3.98
248	154741T6	Human activated B-cell factor-1 (ABF-1) mRNA, complete cds.	g3089604	gbpri	-3.64	-3.02
249	1502915T6	Human heterogeneous nuclear ribonucleoprotein R mRNA, complete cds.	g2697102	gbpri	-3.6	-3.17
250	1488759T6	Human mRNA for phosphatidylinositol transfer protein (PI-TPalpha), complete cds.	g1060902	gbpri	-4	-1.63
251	393928T6	Human mRNA for DB1, complete cds.	g529640	gbpri	-4.21	-1.14
252	2219992T6	C9	g1732423	gbprip	-3.36	-3.75
253	2816984T6	Human N-ras mRNA and flanking regions.	g35102	gbpri	-3.02	-3.77
254	452209T7	Human brain my047 protein mRNA, complete cds.	g4071360	gbpri	-2.72	-3.15
255	638749H1	Human NRAMP2 iron transporter mRNA, complete cds.	g3170363	gbpri	-3.19	-2.61
256	640841T6	Incyte EST			-3.17	-2.79
257	740878T6	Human MAP kinase phosphatase (MKP-2) mRNA, complete cds.	g1255784	gbpri	-3.34	-3.39
258	779073T6	Human mRNA for alpha-actinin.	g28333	gbpri	-2.81	-2.74
259	1445310F6	Human Na,K-ATPase beta-3 subunit pseudogene, complete sequence.	g189062	gbpri	-3.32	-2.51
260	1806435T6	Human mRNA for uridine phosphorylase.	g1050524	gbpri	-2.66	-2.61
261	1859340T6	Human ETS2 gene, 3'end.	g31265	gbpri	-2.68	-2.66
262	1889671T6	Pelle associated protein Pellino.	g3659883	gbinvp	-3.47	-2.81
263	1908860T6	Human clone 24976 mRNA sequence.	g4406548	gbpri	-2.77	-2.54
264	2447337F6	Human CGI-141 protein mRNA, complete cds.	g4929750	gbpri	-2.94	-3.48
265	2452210T6	Human B12 protein mRNA, complete cds.	g179303	gbpri	-3.14	-3.05
266	2497145T6	Human non-lens beta gamma-crystallin like protein (AIM1) mRNA, partial cds.	g2072424	gbpri	-3	-2.94
267	2612839T6	Human EBV induced G-protein coupled receptor (EBI2) mRNA, complete cds.	g292056	gbpri	-2.68	-2.77
268	508735T6	Human clone pSK1 interferon gamma receptor accessory factor-1 (AF-1) mRNA.	g463549	gbpri	-2.79	-1.85
269	1737578T6	Human mRNA for Ig lambda heavy chain.	g2765424	gbpri	-2.87	-1.63
270	1865070T6	Human E2A/HLA fusion protein (E2A/HLF) mRNA, complete cds.	g181911	gbpri	-2.91	-1.93
271	2238605T6	Incyte EST			-2.51	-1.93
272	2448222T6	Human mRNA for phosphatidylinositol transfer protein (PI-TPbeta), complete cds.	g1060904	gbpri	-2.61	-2.17
273	2453340H1	Human RING zinc finger protein (RZF) mRNA, complete cds.	g2906012	gbpri	-2.58	-1.93
274	2474214T6	Human SR protein family, pre-mRNA splicing factor (SRp20) mRNA, complete cds.	g338483	gbpri	-3.26	-1.63
275	2645695T6	Human mRNA for KIAA0274 gene, complete cds.	g1665812	gbpri	-3.12	-2.46
276	2716582T6	Human mRNA for T-cell receptor alpha-chain HAVP02 (V(a)11.1-J(a)I).	g36852	gbpri	-2.63	-1.96
277	3141568T6	Human lymphocyte activation-associated protein mRNA.	g4894623	gbpri	-2.66	-2
278	510540T6	Incyte EST			-2.54	-1.07

TABLE 4

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
279	1285830H1	Human DNA-binding protein (APRF) mRNA, complete cds.	g475788	gbpri	-2.81	-1.2
280	1532801T6	Human mRNA for interleukin-2 receptor.	g33812	gbpri	-2.61	-1.07
281	1747756T6	Human pro-urokinase mRNA, complete cds.	g340159	gbpri	-2.7	-1
282	032467H1	Human Bcl2, p53 binding protein Bbp/53BP	g1399804	gbpri	-2.46	-2.54
283	511038T6	Human mRNA for myeloblast KIAA0212 gene, complete cds.	g1504007	gbpri	-2.1	-2.94
284	1383823T6	Human mRNA for NAD (H)-specific isocitrate dehydrogenase gamma subunit precursor.	g1167848	gbpri	-1.68	-2.65
285	1517291F6	Human mRNA for KIAA0053 gene, complete cds.	g473934	gbpri	-1.63	-2.68
286	1862017H1	Human mRNA for beta-glucocorticoid receptor (clone OB10).	g38681	gbpri	-2.32	-2.83
287	1922735T6	Human fumarase precursor (FH) mRNA.	g2317794	gbpri	-2.29	-2.61
288	2116322T6	Human CGI-101 protein mRNA, complete cds.	g4929670	gbpri	-2.29	-2.54
289	2366633F6	Mouse A kinase anchor protein (AKAP-KL)	g2852698	gbrodp	-2.23	-3.07
290	3271754T6	Human acidic 82 kDa protein mRNA, complete cds.	g558457	gbpri	-2.26	-2.72
291	161115T6	Human lamin B receptor (LBR) mRNA, complete cds.	g438638	gbpri	-1.81	-1.77
292	308581T6	Human transcriptional repressor (GCF2) m	g3421044	gbpri	-1.89	-2.29
293	394087T6	Human brain my047 protein mRNA, complete cds.	g4071360	gbpri	-1.54	-1.72
294	511300T6	Human mRNA for Ariadne protein	g3925601	gbpri	-2.07	-1.96
295	604978R6	Human nucleoside diphosphate kinase homolog (DR-nm23) gene, complete sequence.	g3192941	gbpri	-2.1	-2.07
296	1218053T6	Human monocyte/neutrophil elastase inhibitor gene, complete cds.	g2997691	gbpri	-1.77	-1.68
297	2191256T6	GPx-3 mRNA for plasma glutathione peroxidase	g31896	gbpri	-1.58	-1.68
298	1287267T6	Human mRNA for X-like 1 protein.	g3123571	gbpri	-1.54	-1.54
299	1288342H1	RBP1; retinoblastoma binding protein 1 isoform III	g298686	gbprip	-2.07	-1.89
300	1306707F6	Human mRNA for lipocortin II, complete cds.	g219909	gbpri	-2.07	-2.32
301	1394439H1	Human endothelial differentiation protein (edg-1) gene mRNA, complete cds.	g181948	gbpri	-2.23	-1.85
302	1454705T6	Human myotubularin related protein 6 mRNA	g3916215	gbpri	-1.68	-2.26
303	1477962T6	Human 150 kDa oxygen-regulated protein ORP150 mRNA, complete cds.	g1794218	gbpri	-1.72	-1.58
304	1503230H1	Human GABA-A receptor delta subunit (GABRD) mRNA, complete cds.	g2388692	gbpri	-1.58	-1.93
305	1509884T6	Human HLA-F gene for Human leukocyte antigen F.	g32223	gbpri	-2.46	-2.32
306	1633262T6	Human plasma membrane Ca2+ pumping ATPase mRNA, complete cds.	g950413	gbpri	-1.63	-2.23
307	1669006T6	Incyte EST			-1.93	-2.07
308	1706162T6	Human mRNA for HLA class II DR-beta 1 (Dw14).	g30884	gbpri	-1.58	-1.54
309	1706278T6	Human garp gene mRNA, complete cds.	g439295	gbpri	-2.29	-2.23
310	1729325T6	Human Z23 small nucleolar RNA gene.	g3176041	gbpri	-2.29	-1.93
311	1750447T6	Human prot-oncogene (BMI-1) mRNA, complete cds.	g291872	gbpri	-1.85	-2.1
312	1813891T6	Human protein translation factor sui homolog mRNA, complete cds.	g4689151	gbpri	-1.68	-2.1
313	1825132T6	Human carbonic anhydrase isozyme VI (CA6) mRNA, complete cds.	g179731	gbpri	-1.77	-1.58

TABLE 4

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
314	1849154T6	Human serine kinase (hPAK65) mRNA, partial cds.	g984304	gbpri	-1.63	-2.32
315	1980941T6	Incyte EST			-2.00	-1.54
316	1988078T6	Human synaptobrevin-3 mRNA, complete cds.	g1480967	gbpri	-1.63	-2.32
317	2132606T6	Human ribosomal protein S24 mRNA.	g337504	gbpri	-1.58	-1.68
318	2137446T6	Human Jk-recombination signal binding protein (RBPJK) gene exons 1-11, 5' end.	g190949	gbpri	-2.43	-2.35
319	2180426T6	Human X-linked anhidroitic ectodermal dysplasia protein gene (EDA).	g2314822	gbpri	-2.07	-2.35
320	2201912T6	Human transactivator protein (CREB) mRNA, complete cds.	g181038	gbpri	-1.89	-1.63
321	2203287T6	Human nonmuscle myosin heavy chain-B (MYH10) mRNA, partial cds.	g641957	gbpri	-1.54	-1.58
322	2236363T6	Human full length insert cDNA clone ZD54A10	g3483672	gbpri	-1.68	-2.04
323	2291484T6	Human SS-A/Ro ribonucleoprotein autoantigen 60 kd subunit mRNA, complete cds.	g387656	gbpri	-2.2	-2.04
324	2375549H1	Human serine/threonine kinase RICK (RICK) mRNA, complete cds.	g3123886	gbpri	-2.04	-1.81
325	2423808T6	Human mRNA for KIAA0470 protein, complet	g3413901	gbpri	-1.54	-1.63
326	2446704T6	Human clone pSK1 interferon gamma receptor accessory factor-1 (AF-1) mRNA.	g463549	gbpri	-1.85	-2.29
327	2452667F6	Incyte EST			-1.54	-1.81
328	2503017T6	Human lysosome-associated membrane protein-2b (LAMP2) mRNA.	g1209628	gbpri	-1.77	-1.58
329	2677105T6	Human CpG island DNA genomic Mse1 fragment.	g1030876	gbpri	-1.89	-1.81
330	2702380T6	Human mRNA for Cu/Zn superoxide dismutase (SOD).	g36541	gbpri	-1.81	-1.58
331	2744270T6	Human camptothecin resistant clone CEM/C2 DNA topoisomerase I mRNA.	g473582	gbpri	-1.72	-2
332	2748823F6	Human ras GTPase-activating-like protein (IQGAP1) mRNA, complete cds.	g536843	gbpri	-2.32	-2.17
333	2749472T6	Human mRNA for uridine phosphorylase.	g1050524	gbpri	-1.72	-1.63
334	2824491T6	Human eRFS mRNA, complete cds.	g4099481	gbpri	-2	-1.93
335	2873229T7	Human mRNA fragment for T-cell receptor alpha chain.	g36752	gbpri	-1.77	-2.04
336	2890054T6	Human mRNA for ATP-binding cassette transporter-1 (ABC-1).	g4128032	gbpri	-1.81	-1.54
337	2958621F6	Human plasma membrane calcium ATPase isoform 1 (ATP2B1) gene.	g4165324	gbpri	-1.68	-1.81
338	3034495H1	C08B11.8	g3874174	gbeuk	-2	-1.68
339	3297413T6	Human enhancer of zeste homolog 2 (EZH2) mRNA, complete cds.	g1575348	gbpri	-1.72	-1.77
340	3326096T7	Human mRNA for p115, complete cds.	g2988343	gbpri	-1.81	-1.77
341	3728208T6	zinc finger protein	g205067	gbrodp	-1.85	-2.07
342	023582H1	Human mRNA for 3D6 light chain variable region.	g23866	gbpri	-1.68	-1.2
343	089562H1	Human TEGT gene.	g456258	gbpri	-1.72	-1.26
344	108485T6	Human Rho-associated, coiled-coil containing protein kinase p160ROCK mRNA.	g1276900	gbpri	-1.54	-1.38
345	169295R6	Human ribosomal protein S6 mRNA, complete cds.	g337515	gbpri	-1.54	-1.49
346	261205F1	Human XIST gene, poly purine-pyrimidine repeat region.	g1575007	gbpri	-1.54	-1.38
347	450739T6	Mouse 76 kDa tyrosine phosphoprotein SLP-76 mRNA.	g806767	gbrod	-1.63	-1.38
348	502311T6	Human clone KDB2.12 (CAC)n/(GTG)n repeat	g596005	gbpri	-1.96	-0.58

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
349	511666R6	Incyte EST			-1.77	-1
350	567649T6	Human mRNA of X-CGD gene involved in chronic granulomatous disease.	g37983	gbpri	-1.89	-1.2
351	701644T6	Human MHC class II HLA-DQA1 mRNA, complete cds.	g184194	gbpri	-1.81	-1.32
352	1237113T6	Human prostate carcinoma tumor antigen (pcta-1) mRNA, complete cds.	g1932711	gbpri	-1.54	-0.77
353	1271372H1	Human Ikaros/LyF-1 homolog (hIk-1) mRNA, complete cds.	g1289370	gbpri	-2.29	-1
354	1272733H1	Human chloride channel protein 3 (CLCN3)	g2599547	gbpri	-1.63	-1.26
355	1297406T6	Human mRNA for myeloblast KIAA0136 gene, partial cds.	g1469194	gbpri	-1.54	-1
356	1297646T6	Human CpG island sequence, clone Q28B8.	g1408538	gbpri	-1.63	-0.85
357	1369303R7	Human fb19 mRNA.	g2117158	gbpri	-1.72	-1.14
358	1395739T6	Human RNA-binding protein CUG-BP/hNab50 (NAB50) mRNA, complete cds.	g1518801	gbpri	-1.54	-1.38
359	1430425T6	Human myeloid differentiation primary response protein MyD88 mRNA.	g1763090	gbpri	-1.96	-1
360	1443824T6	Human mRNA for H-2K binding factor-2, complete cds.	g2326266	gbpri	-1.58	-1.32
361	1482416T6	Human RanBP7/importin 7 mRNA, complete cds.	g3800880	gbpri	-1.58	-1.26
362	1518133F6	Human threonyl-tRNA synthetase mRNA, complete cds.	g339679	gbpri	-2.1	-1.2
363	1556430F6	Human octamer binding transcription factor 1 (OTF1) mRNA, complete cds.	g418015	gbpri	-1.68	-1.2
364	1569648T6	Human mRNA for myeloblast KIAA0068 gene, partial cds.	g559702	gbpri	-1.54	-1.49
365	1642853F6	Human integral membrane protein, calnexin, (IP90) mRNA, complete cds.	g186522	gbpri	-1.72	-1.49
366	1663769T6	Incyte EST			-1.58	-0.93
367	1666209H1	Human progesterone receptor mRNA, comple	g189934	gbpri	-2	-1.07
368	1697901T6	Human(clone 71) Miller-Dieker lissencephaly protein (LIS1) mRNA, complete cds.	g349823	gbpri	-1.89	-1
369	1830604H1	Human mRNA for Hs Ste24p, complete cds.	g3721863	gbpri	-1.68	-1.32
370	1867862T6	Human moesin mRNA, complete cds.	g188625	gbpri	-1.72	-1.49
371	1890182T6	Human mRNA for KIAA0853 protein.	g4240194	gbpri	-1.81	-1.2
372	2072691T6	Human I-FLICE isoform 2 mRNA.	g2827291	gbpri	-1.54	-1.2
373	2176527T6	Human mRNA for KIAA0660 protein.	g3327133	gbpri	-1.72	-1.38
374	2204560T6	Human CD14 mRNA for myelid cell-specific leucine-rich glycoprotein.	g29740	gbpri	-2.07	-1.07
375	2233159T6	Mouse Rel domain-containing transcription factor NFAT5 mRNA.	g5524692	gbrod	-1.68	-1.38
376	2242627H1	Human carboxypeptidase D mRNA, complete cds.	g2462776	gbpri	-1.81	-1
377	2326810T6	Human mRNA for KIAA1008 protein.	g4589659	gbpri	-1.58	-1.49
378	2383611T6	Human CGI-84 protein mRNA, complete cds.	g4929636	gbpri	-2.14	-1.14
379	2478839T6	Human epithelial tropomyosin (TM1) mRNA, complete cds.	g339730	gbpri	-1.58	-1.14
380	2498039T6	Human mRNA for ABC transporter 7 protein	g3228278	gbpri	-1.58	-1.38
381	2553130T6	Human 45 kDa splicing factor mRNA.	g3746839	gbpri	-2.17	-1.32
382	2652321T6	Human mRNA for T-cell receptor V beta gene segment V-beta-w22, clone IGRb03.	g33529	gbpri	-1.81	-1
383	2729382T6	Human mRNA for KIAA0313 gene.	g2224567	gbpri	-1.58	-1

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
384	2766696T6	Human lymphocyte specific interferon regulatory factor 4 (LSIRF/IRF4) mRNA.	g1378108	gbpri	-1.68	-1.26
385	2783918F6	Human MHC (HLA) DRB intron 1 DNA, partial sequence.	g1434908	gbpri	-1.68	-1.32
386	2822377T6	Human mRNA; cDNA DKFZp566G0746.	g4884311	gbpri	-1.58	-1.14
387	2835582T6	Human mRNA for T-cell receptor alpha-chain HAP17 V(a)8.1/J(a)O.	g36893	gbpri	-1.63	-1.38
388	2837720F6	Human mRNA for KIAA0615 protein, complete cds	g3327043	gbpri	-1.81	-1.26
389	2935837T6	LEF1; lymphoid enhancer factor 1	g52888	gbrod	-1.81	-1.26
390	3137077T6	Human mRNA for elongation factor 1-alpha	g31091	gbpri	-1.68	-1.14
391	3142624T6	Human MAD-3 mRNA encoding IkB-like activity, complete cds.	g187290	gbpri	-2.04	-1.43
392	3294993T6	Human RNA polymerase II elongation factor ELL2, complete cds.	g1946346	gbpri	-1.54	-1.14
393	3820893T6	Incyte EST			-2.14	-1.26
394	1403970F6	Human low-affinity Fc-receptor IIB gene, exons 4-7.	g183089	gbpri	-1.26	-2.89
395	2749575T6	Human SBC2 mRNA for sodium bicarbonate cotransporter2, complete cds.	g3097315	gbpri	-1.32	-2.72
396	2753531T6	Human mRNA for alpha-actinin.	g28332	gbpri	-1.43	-2.81
397	2875779F6	Incyte EST			-1.38	-2.94
398	042222H1	Human microsomal stress 70 protein ATPas	g460147	gbpri	-1.00	-1.85
399	088219H1	Human flavin-containing monooxygenase form II (FMO2) mRNA, complete cds.	g188630	gbpri	-1.20	-2.04
400	149812T6	AKAP-KL; A kinase anchor protein	g2852697	gbrod	-1.00	-1.63
401	182514T6	Incyte EST			-1.00	-1.93
402	492443T6	Human transcription factor ETV1 mRNA, complete cds.	g596005	gbpri	-1.49	-1.58
403	516262T6	Human T-cell receptor alpha delta locus	g2358019	gbpri	-1.38	-1.89
404	567292T6	Human mRNA for KIAA0516 protein, partial cds.	g3043555	gbpri	-1.20	-1.81
405	927392T6	Human cytoplasmic antiprotease 2 (CAP2) mRNA, complete cds.	g1160926	gbpri	-1.38	-1.72
406	936419T6	Incyte EST			-1.32	-1.54
407	1268604T6	Human MST1 (MST1) mRNA, complete cds.	g1117790	gbpri	-1.32	-1.96
408	1290504F6	Human IAP homolog B (MIHB) mRNA, complete cds.	g1145292	gbpri	-1.38	-1.96
409	1314775F6	Human ribosomal protein L29 (humrpl29) mRNA, complete cds.	g984280	gbpri	-1.49	-1.63
410	1347582T6	Human mRNA for myeloblast KIAA0098 gene, partial cds.	g603954	gbpri	-1.32	-1.68
411	1395143T6	Human mRNA for cytoskeletal gamma-actin.	g28338	gbpri	-1.14	-1.54
412	1507333T6	Human ribosomal protein L5 mRNA, complete cds.	g550012	gbpri	-1.49	-1.54
413	1517479T6	Human adenylosuccinate synthetase mRNA.	g415848	gbpri	-1.32	-2.00
414	1701950T6	Human mRNA for leptin receptor gene-rela	g2266637	gbpri	-1.26	-1.54
415	1730294T6	odorant-binding protein	g207550	gbrod	-1.20	-1.77
416	1730609T6	Human mRNA for Na,K-ATPase alpha-subunit.	g219941	gbpri	-1.49	-1.58
417	1752762T6	Mouse mRNA for testin	g475207	gbrod	-1.49	-2.00
418	1760583T6	Human sodium/myo-inositol cotransporter (SLC5A3) gene, complete cds.	g2739093	gbpri	-1.43	-2.43

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
419	1888251T6	Human mRNA for fibronectin receptor alpha subunit.	g31437	gbpri	-1.49	-1.81
420	2061030T6	Human SnRNP core protein Sm D2 mRNA, complete cds.	g600747	gbpri	-1.43	-1.68
421	2070387T6	dJ281H8.2 (putative novel protein)	g3947682	gbprip	-1.20	-1.58
422	2107288T6	Human tunp mRNA for transformation upregulated nuclear protein.	g460788	gbpri	-1.26	-1.63
423	2176305F6	Human cap-binding protein mRNA, complete cds.	g306486	gbpri	-1.26	-1.58
424	2198796T6	Human mRNA for DRAK2, complete cds.	g3834355	gbpri	-1.20	-1.58
425	2345762T6	Human L-type amino acid transporter subunit LAT1 mRNA.	g4426639	gbpri	-1.43	-2.00
426	2447063T6	Human mRNA for fungal sterol-C5-desaturase homolog, complete cds.	g1906795	gbpri	-1.32	-1.58
427	2492212T6	Human mRNA for KIAA0516 protein, partial cds.	g3043555	gbpri	-1.20	-1.54
428	2542309T6	Human metalloprotease/disintegrin/cysteine-rich protein precursor (MDC9) mRNA.	g1235761	gbpri	-1.00	-1.72
429	2807227T6	Human mRNA for pristanoyl-CoA oxidase.	g2326548	gbpri	-1.00	-1.81
430	2878786F6	Human TBP-associated factor 172 (TAF-172) mRNA, complete cds.	g2920568	gbpri	-1.26	-1.54
431	2926914H1	Human cytoplasmic beta-actin gene, complete cds.	g177967	gbpri	-1.26	-1.63
432	3141751T6	Human lymphocytic antigen CD59/MEM43 mRNA, complete cds.	g180152	gbpri	-1.38	-1.93
433	3537363T6	Human mRNA for smooth muscle myosin heavy chain.	g532875	gbpri	-1.32	-1.68
434	3967402T6	Human mRNA for myeloblast KIAA0227 gene, partial cds.	g1504033	gbpri	-1.49	-1.89
435	1218810R6	Human mRNA for leucine zipper protein.	g1834506	gbpri	2.07	2.00
436	2747633T6	Human mRNA IFRD1 (PC4) interferon-related developmental regulator	g2706510	gbpri	2.00	1.85
437	3119391T6	Human mRNA for orphan nuclear hormone receptor.	g458541	gbpri	1.72	2.00
438	2052083T6	Human mRNA for heat-shock protein 40, complete cds.	g710654	gbpri	1.68	1.26
439	2701222H1	Human MEN1 region clone epsilon/beta mRNA, 3' fragment.	g2529723	gbpri	1.68	1.49
440	708939T7	Incyte EST			1.49	1.81
441	1964291T6	Human mononcyte/neutrophil elastase inhibitor mRNA sequence.	g188621	gbpri	-2.96	-0.68
442	2455118T6	Human NAD-dependent methylene tetrahydrofolate dehydrogenase cyclohydrolase mRNA.	g35070	gbpri	-2.63	-0.93
443	2839121F6	Incyte EST			-2.61	-0.68
444	356774T6	Human myelin basic protein (MBP) mRNA, complete cds.	g187408	gbpri	-1.63	0.14
445	414523T6	Human spermidine synthase gene, complete cds.	g338393	gbpri	-1.77	-0.38
446	1359550F6	Human mRNA for EMR1 hormone receptor.	g784993	gbpri	-2.23	0
447	1521513T6	Incyte EST			-1.68	-0.14
448	1667912T6	Human mRNA for monocyte chemotactic protein-2.	g1924937	gbpri	-1.54	-0.26
449	1694490H1	Human mRNA for LIMK-2, complete cds.	g1805593	gbpri	-1.96	-0.26
450	1818802T6	Human OZF mRNA.	g468707	gbpri	-2.23	-0.49
451	1855389F6	Human pTR2 mRNA for repetitive sequence.	g35994	gbpri	-2.2	0.14
452	1905291F6	Human IAP homolog B (MIHB) mRNA, complete cds.	g1145292	gbpri	-1.54	-0.49
453	1968621T6	Human TNF-inducible protein CG12-1 mRNA,	g3978245	gbpri	-1.63	-0.14

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
454	522294T6	Human Staf50 mRNA.	g899299	gbpri	-4.01	-0.26
455	2469208T6	Human DNA-binding protein mRNA, complete cds.	g2275152	gbpri	-2.38	-0.26
456	2642654F6	LGMD2B; LGMD2B protein	g3560124	gbpri	-1.81	-0.26
457	2651610T6	Human hemopoietic cell protein-tyrosine kinase (HCK) gene.	g183913	gbpri	-1.85	0
458	3558108T6	Human p78 protein mRNA, complete cds.	g190135	gbpri	-2	-0.38
459	3810351T6	Human cig64 mRNA, partial sequence.	g2612974	gbpri	-1.81	-0.49
460	2075438T6	Complement factor B.	g452937	gbpri	-1.93	-0.77
461	1929583F6	alpha-1 (VIII) collagen precursor	g164896	gbmamp	-1.63	-0.85
462	1870501F6	Human carboxypeptidase D mRNA, complete cds.	g2462776	gbpri	-1.68	-0.77
463	1873942T6	Human mRNA for NF-kB subunit.	g35039	gbpri	-1.77	-0.85
464	1865713F6	Human dioxin-inducible cytochrome P450 (CYP1B1) mRNA, complete cds.	g501030	gbpri	-2	-0.93
465	1726703T6	Human rolipram-sensitive 3',5'-cAMP phosphodiesterase mRNA, complete cds.	g433346	gbpri	-1.63	-0.93
466	1738538T6	CGI-44 protein mRNA	g4929556	gbpri	-2.1	-0.85
467	1742602H1	Human hexokinase 1 (HK1) mRNA, complete cds.	g184020	gbpri	-2.04	-0.68
468	1822751F6	Human keratin type II (58 kD) mRNA, complete cds.	g186697	gbpri	-1.63	-0.85
469	1823789T6	Human TRAF-interacting protein I-TRAF mRNA, complete cds.	g1518017	gbpri	-2.1	-0.58
470	3214119F6	Human myotonin protein kinase (DM) mRNA, triplet repeat region.	g189037	gbpri	-1.63	-0.77
471	3230628T6	Human IRLB gene.	g33968	gbpri	-1.68	-0.85
472	2697170T6	Human hH3.3B gene for histone H3.3.	g761715	gbpri	-2.26	-0.77
473	2605603T6	Human BTK region clone ftp-3 mRNA.	g460085	gbpri	-1.96	-0.85
474	2618045T6	Human mRNA; cDNA DKFZp586D1122	g4884381	gbpri	-1.58	-0.93
475	2633001F6	Human pilot mRNA.	g35472	gbpri	-1.54	-0.77
476	2506614T6	Human leupaxin mRNA, complete cds.	g3126970	gbpri	-1.81	-0.58
477	2972510T6	TLR3; signaling receptor; Toll-like receptor 3	g2459626	gbpri	-1.54	0.58
478	2205246T6	Human mRNA for vascular smooth muscle alpha-actin.	g28329	gbpri	-2.32	-0.93
479	1902366T6	Human Hlark mRNA, complete cds.	g2078528	gbpri	-1.63	-0.68
480	1686561T6	Human mRNA; cDNA DKFZp586G0522	g4886510	gbpri	-2.43	-0.77
481	1846209T6	Human mRNA for IFN-inducible gamma2 protein.	g30820	gbpri	-1.26	-0.26
482	2472702T6	Human mRNA for IFN-inducible gamma2 protein.	g30820	gbpri	-1.00	-0.26
483	2746232T6	Human guanylate binding protein isoform I (GBP-2) mRNA, complete cds.	g183001	gbpri	-1.07	-0.26
484	452968T6	Human mRNA for lactate dehydrogenase B (LDH-B).	g34328	gbpri	-1.68	-0.93
485	1491088T6	dipeptidase precursor	g217705	gbmamp	2.04	-0.14
486	1294238H1	Human serum-inducible kinase mRNA, complete cds.	g3075508	gbpri	-0.14	-2.91
487	884512T6	Human NAD+-specific isocitrate dehydrogenase beta subunit precursor mRNA.	g2737885	gbpri	-0.49	-1.72
488	933140T6	Human natural resistance-associated macrophage protein 2 (NRAMP2) gene	g3158426	gbpri	-0.38	-1.63

TABLE 4

SEQ ID NO:	Incyte ID	Gene Name			Ct/A	Ct/B
489	1557811T6	Human gene for thrombomodulin precursor, complete cds.	g220126	gbpri	-0.14	-1.54
490	1747645T6	Human RLIP76 protein mRNA, complete cds.	g974142	gbpri	-0.26	-1.77
491	1862007F6	Human mRNA for LZTR-1, complete cds.	g809500	gbpri	-0.14	-1.58
492	1968661R6	Human prostaglandin E2 receptor mRNA, complete cds.	g639719	gbpri	-0.49	-1.77
493	2207534T6	mouse thymidylate kinase (tmk) gene.	g1836041	gbrod	-0.26	-1.68
494	2326622T6	Human mRNA for 19kD protein of signal recognition particle (SRP).	g36112	gbpri	-0.49	-2.43
495	2452694T6	Human mRNA for proton-ATPase-like protein, complete cds.	g1694672	gbpri	-0.49	-2.00
496	3441613F6	cytochrome P450p-2	g298838	gbrodp	-0.26	-1.77
497	3518439T6	Human CGI-107 protein mRNA, complete cds.	g4929682	gbpri	-0.26	-1.58
498	3876090T6	Human mRNA for ESP1/CRP2, complete cds.	g1235723	gbpri	0.00	-1.77
499	452336T7	KIAA0990 protein.	g4589624	gbpri	-0.93	-1.63
500	961630T6	Incyte EST			-0.58	-1.77
501	041795H1	Human sodium/myo-inositol cotransporter	g2739093	gbpri	-0.58	-1.89
502	1406908T6	Incyte EST			-0.93	-1.72
503	1430933F6	Human aminopeptidase N/CD13 mRNA encoding aminopeptidase N, complete cds.	g178535	gbpri	-0.68	-1.89
504	1468353F6	Human vitamin D receptor mRNA, complete cds.	g340202	gbpri	-0.68	-1.89
505	1500367F6	Incyte EST			-0.93	-2.00
506	1561504H1	Human mRNA for KIAA0053 gene, complete cds.	g473934	gbpri	-0.58	-1.77
507	1709659T6	Human mRNA for DC class II histocompatibility antigen alpha -chain.	g32265	gbpri	-0.58	-1.54
508	1817550T6	Human interleukin 3 receptor (hIL-3Ra) mRNA, complete cds.	g186330	gbpri	-0.93	-2.20
509	1852712T6	Human mRNA for clathrin-like protein, complete cds.	g807814	gbpri	-0.77	-2.04
510	1861724T6	Incyte EST			-0.58	-2.00
511	2449112T6	Human aminopeptidase N/CD13 mRNA encoding aminopeptidase N, complete cds.	g178535	gbpri	-0.93	-1.58
512	2769161T6	Human clone zeta protein mRNA, complete cds.	g2529710	gbpri	-0.85	-1.58
513	2855766T6	Human mRNA for lipocortin.	g34387	gbpri	-0.68	-1.77
514	3034487T6	Human SBC2 mRNA for sodium bicarbonate cotransporter2, complete cds.	g3097315	gbpri	-0.85	-2.38
515	3334413F7	Human MASL1 mRNA, complete cds.	g4239894	gbpri	-0.85	-1.77
516	1266985T7	Human orphan opioid receptor mRNA, complete cds.	g1144296	gbpri	-0.38	1.58

DECLARATION AND POWER OF ATTORNEY FOR UNITED STATES PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, and

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if more than one name is listed below) of the subject matter which is claimed and for which a United States patent is sought on the invention entitled

GENES REGULATED BY HUMAN CYTOKINES

the specification of which:

/ X / is attached hereto.

/ ___ / was filed on _____ as application Serial No. _____ and if this box contains an X / ___ /, was amended on _____.

/ ___ / was filed as Patent Cooperation Treaty international application No. _____ on _____, 1999, if this box contains an X / _ /, was amended on under Patent Cooperation Treaty Article 19 on _____ 1999, and if this box contains an X / _ /, was amended on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge my duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim the benefit under Title 35, United States Code, §119 or §365(a)-(b) of any foreign application(s) for patent or inventor's certificate indicated below and of any Patent Cooperation Treaty international applications(s) designating at least one country other than the United States indicated below and have also identified below any foreign application(s) for patent or inventor's certificate and Patent Cooperation Treaty international application(s) designating at least one country other than the United States for the same subject matter and having a filing date before that of the application for said subject matter the priority of which is claimed:

Country	Number	Filing Date	Priority Claimed
			/_/ Yes /_/ No
			/_/ Yes /_/ No

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in said prior application(s) in the manner required by the first paragraph of Title 35, United States Code §112, I acknowledge my duty to disclose material information as defined in Title 37 Code of Federal Regulations, §1.56(a) which occurred between the filing date(s) of the prior application(s) and the national or Patent Cooperation Treaty international filing date of this application:

Application Serial No.	Filed	Status (Pending, Abandoned, Patented)

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respectively and individually, as my patent attorneys and/or agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith. Please address all communications to:

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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Signature:	______________________
Date:	______________, 1999
Citizenship:	Indian
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SEQUENCE LISTING

<110> Sornasse, Thierry
Cocks, Ben
Sanjawala, Bharati

<120> GENES REGULATED BY HUMAN CYTOKINES

<130> PA-0020 US

<140> To Be Assigned
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<160> 516

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<222> 41, 59, 102, 105, 142, 147
<223> a, t, c, g, or other

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<223> a, t, c, g, or other

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<222> 73-74, 122, 141, 154, 173, 186, 189, 205, 207, 218, 227, 233-234,

236-237, 239, 241, 248, 250, 254, 260, 268, 305, 307, 331, 359, 369, 428, 459, 486, 496
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tgggcgctgg tggag 75

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ctctttacta aaaaggggtt ttctacattt taaatgagat tcaggctatc ttagggaatg 360
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atattttt 428

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aagtgcgagg aaagaaggaa attagtctga ctggctttct gtcctgcacc attgattcaa 360
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<212> DNA
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355, 368, 371, 374-375, 381, 399, 403, 409, 439-440, 446
<223> a, t, c, g, or other

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aattaaataa ctatnaaggg gtacagantt aagagttcca gccttccctc ttggggaaaa 180

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gtaaacctgg gactttngca ggnggngctg ggagctgatg gaatttgtaa accangctgt 360
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<223> a, t, c, g, or other

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agatctcaat ctcaccagta gccctttatg ctnnggnttt ctcaagaccc tcttcttcnn 180
gngagtngac tcttcctttt tcctccccat nnngctgcng acaattttnc attaggttct 240
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ntncnttgct nancangcnn ncnccaacta gnac 334

<210> 12
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<221> unsure
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<223> a, t, c, g, or other

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tcangaaagt tccntgatgn atgttcagtg ttggtatcaa aaaattagac acnaattctt 540
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<212> DNA
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<222> 263, 320
<223> a, t, c, g, or other

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tccgataata ttcatagtca aataagttac tttaaattgc atgcaataca actttatgtt 180
ccatagcatc tttaataaaa accgtttacc aaaatggctc ttcaaactta aaaagtgcaa 240
ttacagagtg caaaatagaa ganaatacat tatattacat ttaacatcat caaatttgaa 300
taacagatat ttaaatggan attactcttt ttaaaa 336

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<212> DNA
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<221> unsure
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<223> a, t, c, g, or other

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catgaaggtt aaaggcaaag tcttagtccc catcttatgc tttcccancc tcttcttgna 180
aactacattg aacctctatg ggntaatcat cgtcttctgt agccataagg tctctgcaag 240
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182, 185, 191, 199, 214, 216, 218, 221, 224, 229-230, 233-234, 240, 242, 256, 259, 267, 282, 291, 301-303
<223> a, t, c, g, or other

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cncanacact nctcatgcna cttatcagca cttncnanca nccngaccnn acnnacaccn 240
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<223> a, t, c, g, or other

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<210> 18
<211> 353

<212> DNA
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<223> a, t, c, g, or other

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<223> a, t, c, g, or other

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<222> 3, 9, 11, 13
<223> a, t, c, g, or other

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<211> 308
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<213> Homo sapiens

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<221> unsure
<222> 95, 110, 125, 196, 242, 246, 249, 265, 272, 275, 280, 282, 293, 301
<223> a, t, c, g, or other

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<222> 486
<223> a, t, c, g, or other

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<223> a, t, c, g, or other

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<211> 389
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<213> Homo sapiens

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<211> 374
<212> DNA

<213> Homo sapiens

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<220>
<221> unsure
<222> 198, 226, 342
<223> a, t, c, g, or other

<400> 26
ggatttttaa ctttttatg tgatgaacca cagaatgatg gttttaaatg tatgaaatac 60
atagaattgc aacagaaacc agttatgaaa taatgaagat attaaatatg acatctatat 120
tttagtaaag cattagtgag gactgtaaat gatctttaaa gaatttggct taaatttaat 180
ctaaaattgc tatcaggnat ttcacatcgc tgtaattttt gcctgnattc gtaactgaag 240
agataagtaa atgtcagagg ttaagataaa tctttttctt tttttacctg tccatattta 300
caaacattct gcgttccgta catagacgcc tggataagaa cnnctgtgca agaatgactt 360
tggtgctact ttaa 374

<210> 27
<211> 259
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 709070T6

<220>
<221> unsure
<222> 84, 93, 95, 97, 99, 164, 222
<223> a, t, c, g, or other

<400> 27
gagtccagtg taacatggtg gctgggagtg tgagtggatg aatgggggc ccgatatagg 60
aactggggcc tcggggatga gggnagccgt ccnancngnc cttcttccac gaccatcctt 120
accttcccac ccccaccgct cccattctgc agatgagaaa accnaggctc cgaaaggaaa 180
aaccactgcc tggattccca cgcctcttct ttaactcatt tncaggtgag ggcagggaag 240
gaaaatccta gggtcagca 259

<210> 28
<211> 475
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 993224T6

<220>
<221> unsure
<222> 28, 31, 33, 52, 56, 64, 70, 74, 80, 87, 100, 131, 141, 143, 314, 361,
374, 383, 385-386, 423, 426, 428, 442, 460, 470
<223> a, t, c, g, or other

<400> 28
tatccaataa gagaatagaa ataaacancc ntntgtttac gggttgcccc anggtnttac 60
cacngctacn agancactgn gaaccanagg tgtcctacan ttaataaacg catggaaaat 120
gtaaaagaga nactctgagt nanaaagcca tccaatcttt tcagagtccc atctctgaaa 180
catttcaaat ctttatctgt ttacaaatga aactgtctac atgcaaactt taaatgtcat 240
ttttccaccc acaatactca tacctctccc tgcttaacac tggttcccca cacccagagc 300
catagcaatt acanaacaaa acagtgattt gttgaacaca gtagctctaa agccacgacc 360
naacattatt tccntgaaga cancnntact atgttagtca tctgaacatt ttaccagatt 420
tcnacnanga cattatatct anacatattc tgaaggccgn tttaactcan ctagt 475

<210> 29
<211> 277
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1234795H1

<400> 29
gggaaaagag gacttattgt tgtcatggcc catgagatga ttggaactca aattgttact 60
gagaggttgg tggctctgct ggaaagtgga acggaaaaag tgctgctaat tgatagccgg 120
ccatttgtgg aatacaatac atcccacatt ttggaagcca ttaatatcaa ctgctccaag 180
cttatgaagc gaaggttgca acaggacaaa gtgttaatta cagagctcat ccagcattca 240
gcgaaaccat aaggttgacc attgattgcc agtcaga 277

<210> 30
<211> 437
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1274557F6

<220>
<221> unsure
<222> 304
<223> a, t, c, g, or other

<400> 30
gtaattaatc ataaatatag aaacagtagt aatacagctg acattaccat ttaattttat 60
attatgaaag caaatcatct gcatgtgcat caaggccagt cctattcaac ctagctttcg 120
aatgctgata tctggttagt atgtcatttt gaagttggca cataactttt ctaaaaaaaa 180
gcagtctttg ttgtttgctt cttccctacg gatgacttct aaaaatatat gacgggtata 240
aaaaaattag ctatattgat catatcaaca ctgtaactgc tgaaatggca ttctaatgtt 300
tgcnttttat tcggacaggc cacatgatgc atagagcctc tttcatgtga cctgtgtcta 360
ctgcttaaat ctttatgctg tgttgatgat attatattga catatgaagc tgtatatggg 420
gatggatttt gtggaga 437

<210> 31
<211> 325
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> Incyte ID No: 1304655F6

<220>
<221> unsure
<222> 17, 50, 69-70, 77-78, 82, 87, 119, 121, 148, 151, 153, 163, 171, 187, 191, 210, 216, 229, 233, 254, 283, 285, 287-288, 312, 314, 316, 318
<223> a, t, c, g, or other

<400> 31
gctagcgagt gaacaanttc agaaagcagg aggcttgaaa acctccagtn tcataattgc 60
tctgacagnn ggcaagnngg anggtcnggt gccatcatat gcagagaaag aggcaaagnt 120
ntccaggtca cttggggcta gtgtttantg ngntggtgtc ctngattttg nacaagcaca 180
gcttganaga nttgctgatt ccaaggagcn agtttnccct gtcaaaggng ganttcaggc 240
tcttaaagga gtanttagtt ctgtactagc tcagtcgtgt acngnanncc tagaattgca 300
gccctcaagt gncngngngg gggag 325

<210> 32
<211> 528
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1318881T6

<220>
<221> unsure
<222> 403, 449, 499-500
<223> a, t, c, g, or other

<400> 32
taaaggaagc aatcattcct ttatacttct ttaaatttag tattgacatt tttatttgg 60
gaaaggaggt ctttttttt tttaacatgg atacaggaaa agaaaactct ccaataaaaa 120
tattgtctaa aaagtttgtt ttgtctgcat gatttactaa atatgtacaa tttcaattca 180
cagcgaaggt aacaaagatt taaacagcca acatcacaaa tgtctcaagt tctaaaaaaa 240
aatcactgtg cacagtttaa caatttaatt gaaaaaacca aagctaagcc ttcagtctga 300
atctttttt atgatgggca caagccatgt attttcttca tctttgttac acgatgcata 360
tttcagtgac taaaagcccc ttcccatttt agtatattag gtnatgtcag tacatactta 420
agagaggcat aaattgcctc ttggtacanc aatatgattt tgtgatgtgt tcacatataa 480
tggtcataat aatttaatnn atatatagga atgatcagga tgagtcac 528

<210> 33
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1404348T6

<220>
<221> unsure
<222> 50, 75-76, 86, 95, 118, 122, 127, 133, 137, 139, 143, 146, 158, 163, 180, 185, 189, 203, 233, 276, 293, 305, 318, 325-326, 340, 346, 348, 350, 353, 356, 381

<223> a, t, c, g, or other

<400> 33
gaatagatca ttcagtaaaa acatacagta aaaacaaaat gtcttatcan gtacaacttt 60
caaactacaa taatnntgta ccttanttac ttccntggca cacaagtcta acatttgntt 120
tnttaanaaa tanaacncna ttnagncttc taggagcntt ttntaataaa gtaattcctn 180
attantttnt ccttgtcaga tanatcacgc acctccaaaa tacaaattcc tanacacagt 240
gagcacgtta cttaaaatga acacttaagt aaattnagta cgtggacagc ccnaggataa 300
gctgncatta tagatgcngc taggnnggcc acaaaccctn agtgcnancn ggnaanagta 360
tatttgcaac tgaattttaa na 382

<210> 34
<211> 613
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1415624T6

<220>
<221> unsure
<222> 458
<223> a, t, c, g, or other

<400> 34
tagaaatttt tacatcaaag tgtgataacc tcacttacac attgttccat acttacctgg 60
ttttgtttgc atctttctgc aaacattaaa aggagatgga tttgattctg attttttttgc 120
tatggttcat gtaaacagtt gagactgcta cataaagtag gttgttgtca aaggtgaagt 180
ggccacagaa tcccaagaat agaataattc aatttggttt aatgaaattg gtggaggtct 240
tagcagatag ataatccaag actaaatatt gtcttctagg cattttaaaa attaagaact 300
ttgaggtttt cttcatgttg taaacataac ttagaccttg ttggcattaa gtttacaaaa 360
gaaaatatta aaccatgatt tttatcatcc tgcccatgtc agtatacact ctctttatta 420
tgagaatgaa accaaataat aagcaaaata catcaggntt tcaaattgta ctgcaaagaa 480
ggtcccagct ggtctcttct gggagtgatc taactaactt aagctgaccc tgcgactggc 540
tgaggataat cccttctgtc cactgcaccg tgcaatgcca cagggtcatg agatgggtca 600
gttcctcttg ctc 613

<210> 35
<211> 294
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1437809T6

<220>
<221> unsure
<222> 7, 28, 65, 90, 103, 108, 116, 123, 133, 139, 146-147, 180, 183, 219,
233, 259-260, 263, 280-281, 289, 291
<223> a, t, c, g, or other

<400> 35
gggagangcg agccttctgg gggacggnga caagaatacc gcaaagaata ccgcaatggc 60
gaacngcctt gcatagacac cgaggcgggn tagcggcgcg gcnggaanag gagagngatg 120

ganaaataac ttnggagang aaggtnncac catcgcctcc atgggcactg cgcggctgtn 180
atnaaggcca cagcggccct ccccgcttcg gggggtcang gtgtccactc canatatgcc 240
ttatacattc taatttgann canagtcctt gcatattccn ncatacttng ngtg 294

<210> 36
<211> 450
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1438157T6

<220>
<221> unsure
<222> 12, 40, 110, 112, 116, 119, 135, 152, 161-162, 194, 205, 222, 241,
244-245, 257, 262, 266, 289, 292, 304, 307, 327, 336, 352, 356, 362-363, 365,
381-382, 386-387, 407, 416, 429, 439
<223> a, t, c, g, or other

<400> 36
taactccatc tntgagaaac atttaataat gtaatgtgtn tgtggtacag ggtgagtaca 60
gatgcacagg aggccatagg gtttaggcaa aggggagcac aaaagttgan gntgangcnc 120
tgccatcaaa gctgnggggc ttcaggccaa gnacaggagc nnaggaagcc acaagggagg 180
acattttctg cagntgctga accantagca accaggtcct gngaaagccc tctcttgtgg 240
nagnntaaca gccaggnggg anagcntttc atcctgcaaa gctggggcng anagttcttc 300
tttnaangtg tcatctgcac ttcagcncag gaatcntctt ggctgaagtc cngagngtcc 360
tnncngattc ctgaagtaga nnaacnnccc ggccccaagg aagcgcnggg gcagcncaaa 420
gccccgant ccactcagna tcttgctctg 450

<210> 37
<211> 539
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1439529T6

<220>
<221> unsure
<222> 427, 526
<223> a, t, c, g, or other

<400> 37
aaaattgaca agtttaattc ttaactgcac caagtaaact tagccattta agtatttttt 60
taagttattc cctccaaaaa actgagggag cttttctttt ccaccaccac accatggttt 120
cccaatagtt ctctttttgg aggacttttc aattgatgag taaactgctt tagatatttc 180
agaacttcat tccccaaatg aaagctaatc tggacaaact atatattgca tagatttctc 240
tacagattct ttgctttaaa acctaaatgc aactaacata gtgtaatttt aacctatttg 300
ccccacagta aaaactatct gtcctgaaaa atatgatgga tatatcctgt gattttccag 360
ttaacagaat tgttctactt caaagataat tattatcata tatcaaaata accagctcaa 420
cataggncat tacttcagtc tttactggac tccataggca tatgaacttg tgcccagctt 480
tttacctctt cccacattct cctcctcctc cataagtggg atgggnatta tttaaccta 539

<210> 38

<211> 559
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1454203T6

<220>
<221> unsure
<222> 490, 528, 535
<223> a, t, c, g, or other

<400> 38
acgtcagtca tttcattgtg ttcacaattt gctaattcat tttttatctt ctctagtatc 60
agatcagatc agtgtacctc caaacagaga tggaagctac actgcagttc ccaatactac 120
ttcagcatag agcaaaaatg tgaagccaat taacagagaa atcatttttg gcattattag 180
gcaatcaaag gggttaacta aagtgaactg tggttcagaa attgagaaat tctttttctt 240
tttgaataaa aaaaggagat gaaaaacttc cacttcttct cagtggttac tgtagaagat 300
gtctctttac taaaaagggg ttttctacat tttaaatgag attcaggcta tcttagggaa 360
tgagcatttg tcttttcata tgattagtgt ctaccccaag aatagttcca ttgatgaaga 420
ttttctatat tttttcatat ctagctatgc tatttcctca tgaaagtcca agacttttta 480
tgactgtggn aattttagaa tatacatgaa tgatctttca gagtcacnat tttgncataa 540
tcggtaaaaa aacttattt 559

<210> 39
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1479279F6

<400> 39
aaactatgaa tagactgacc cagctggaaa gattggattt gggaagtaac gaattcacgg 60
aagtgcctga agtacttgag caactaagtg gattgaaaga gttttggatg gatgctaata 120
gactgacttt tattccaggg tttattggta gtttgaaaca gctcacatat ttggatgttt 180
ctaaaaataa tattgaaatg gttgaagaag gaatttcaac atgtgaaaac cttcaagacc 240
tcctattatc aagcaattca cttcagcagc ttcctgagac tattggttcg ttgaagaata 300
taacaacgct taaaatagat gaaaaccagt taatgtatct gccagactct ataggagggt 360
taatatcagt agaagaactg gattgtagtt tcaatgaagt tgaagctttg ccttcatcta 420
ttgggcagct tactaactta agaacttttg ctgctg 456

<210> 40
<211> 129
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1487763T6

<220>
<221> unsure
<222> 26, 44, 51, 55, 57, 66, 78, 87, 89, 100-101, 104, 110, 113, 128

<223> a, t, c, g, or other

<400> 40
agtagcacat tgcatctgtt aagtgnccca gctcacctgt aatngttatg nttcnancgg 60
ttgttncatt ccaagatnat ggtgtangng ttacaccccn natnttcatn tcnacattct 120
gcaggttnc 129

<210> 41
<211> 100
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1508830T6

<220>
<221> unsure
<222> 29, 35, 42, 45, 51, 53
<223> a, t, c, g, or other

<400> 41
acctcgtgcc cacacagtgc ctgtctgant ccttntgttg cncanatgtg nancaggctg 60
gcagagactt gaagcctgtg gttttgtgcc tcctttgtgt 100

<210> 42
<211> 502
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1510668F6

<220>
<221> unsure
<222> 254, 462
<223> a, t, c, g, or other

<400> 42
caggcatcct ctggggtgta tttggggcgc tcaacaaggc ttgatcgagc tttgggggta 60
gatctagcta ttccatgggg attcttttca gaattgctgt tttcggtaac taattccatg 120
accaggtcca tggcattgga tgacattgcg ctacactgtt gctcacccgg gtcacccgtc 180
ctcacaggtt ggatggcaag catgttgtgt tcggtcacgt caaagagggc atggacgtcg 240
tgaagaaaat atantctttc ggctctaaga gtgggaggac atccaagaag attgtcatca 300
cagactgtgg ccagttgagc taatctgtgg ccagggtgct ggcatggtgg cagctgcaaa 360
tgtccatgca cccaggtggc cgcgttgggc tgtcagccaa ggtgcctgaa acgatacgtg 420
tgcccactcc actgtcacag tgtgcctgag gaaggctgct anggatgtta gacctcggcc 480
aggacccacc acattgcttt cc 502

<210> 43
<211> 581
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> Incyte ID No: 1557279F6

<220>
<221> unsure
<222> 564-565
<223> a, t, c, g, or other

<400> 43
gtttaaatca agagaagttg taatctcttg ttttaagctt gcgtttgagg gaaagtgact 60
ttttcaccaa ttaatatgca ttgttctgtt gtttttattt atgattgatc attatatgtg 120
acttgcataa actatttaaa aaaaaaacta taatgaccaa aatagccatg gctgagaaac 180
acagtggctg ggcagttcaa taggaggtga caatatgaca acttctcaag cttgggaact 240
caccagactg tttcctcctt taggtaacag attctgtccc acggctaaac ttgtctttca 300
cgtgggaatt gcttttgtca aacgtgaaag agtaaacaat agcatttccc cagaatgcca 360
gttttatgga gccccaaatg ctctgaaaac aattagtaac ctggaagttg tcagcccaaa 420
ggaaagaaaa atcaattgta tcttgaaatt ttacctatgg ctctttggcc tggctctttg 480
ttcattataa gttagtgtgt ccttcaggaa caatgccctt aataccatag aacatggggg 540
gccttaatag tgctaacatt aaanngcaac agatgattga g 581

<210> 44
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1561237T6

<220>
<221> unsure
<222> 152, 385, 399
<223> a, t, c, g, or other

<400> 44
tgattgaaat aaaccaagca ttgttgggct gaattatgga gagacccgag gagtgactca 60
gcctaaagcg ttgacccagt tgtgagcagc tcacaggccc tgcaggagga gcaggccagc 120
gagggagaca caagcagatt gtcctgccag gnaggggcgg gagggcccac ccaggccaca 180
ggggccacca aagcaaaaaa gcagattatg aggcagcttc acccctccca gcactggggc 240
tggggcctgg cgagggtcac acctctgagt atgggggtgg tgctgggccc ccctctgggg 300
tcttcgatgg caaagacagg gttcctcgta ggacggcagg accacttctg gagcatttgg 360
agttttttttc tcctcacgag tcatnacttg taattgtana cgcacacgac ttgacatgta 420
gac 423

<210> 45
<211> 534
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1562722T6

<220>
<221> unsure
<222> 18-19, 511

<223> a, t, c, g, or other

<400> 45
aaaagaaagg aagaatannng ggaaaaaagg gagtaaggga gaagggaaaa ttcaaagcat 60
ggagaagcca ctgtttgttt ctcctgcacc tgctgtctgc catctgtcta ctctttctta 120
actcttctct tctggcttct gctgtcattg ctctgttgat ctgctcttct gaacttcatt 180
agtgaccttg tgaatgataa gttcaatagc ctcctctcaa tcccggtcct cctccacctc 240
tctagctctg ctctcctcct tgaaacattc atggctcttg acttctcatc ttccacctgt 300
ttgattctgc tccagcacct tgatcaatgt cttcctccta ccctttgtct ttaaatgcag 360
gtgccccgag ggctctgtcc ttggttctga actcttccct ccatgttttc acttcttgct 420
gggttccagt taatctctct acacacattc ctctccagcc ctcaacactc tggctaaccc 480
acatctctag ctatctgcta gacctctctg nctgatgatt ccaaacacac agaa 534

<210> 46
<211> 221
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1629481T6

<400> 46
gtaaacagac acatgaaatg gaaaagctct gcattatcag acttggtatg catctcaact 60
gaaatacaag caggactaac cagacacaca tctcataatt tccagtgtca ctgtacaatc 120
atattaacag tggtcagttt ttttcaatcc acagaaaagc aagcagacaa accaaggcac 180
ttaaatgtca cttggctaat gacactcatt tcaaccctcg a 221

<210> 47
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1638102F6

<400> 47
tctggctttg ttctccgttt gaaaaaccgt cactttatag gcttaatata tctattttac 60
acattaagac tgtaccttca aactgtgttg ttccatacag tagccctagt catgtgtggc 120
taaacttgaa ttaacaaaaa ttgaataaaa tttaaaattc agttcctgag gtgcactaat 180
aacatttcaa tggctccaga gtaacatatg gctggtggct actgtattag acaatacaga 240
atggtttcat catcacagaa agttctgctg gacagtgctg agttggaacc aggtgttctt 300
tacacacaga ccacttaaag actgaggttt tatttataca cctgagtttt ccaagcactt 360
ttatctttga ctgtggccaa cattctatag ggctaaatcc caactttagc agccggaagt 420
cgc 423

<210> 48
<211> 214
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1643115H1

<220>
<221> unsure
<222> 48
<223> a, t, c, g, or other

<400> 48
aaagttctga tcgtaccagt ctttcttcag tgggagccca ggattctnaa tctacctctt 60
taacagatga agatgtctgc catgagttgg aaggacctat ctcctctcaa gagaccagtg 120
ctacttcagg gactaagaga attgatctca gccgaataag cctggaaagt tctgcatcct 180
tggaaggatc tctgtcgaag tttgccttac ctgg 214

<210> 49
<211> 427
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1647985T6

<400> 49
tttattacaa ccccctttca gaaacaaacc ccaaaacaac acagagttat aaagtgaaga 60
tatatataca cacacacaca catatatata tcatacatac aattattata tacttttca 120
gttttctttt tgataactga aaatatctac aatgttttcc attccattat agattaccat 180
tccatttgca ataattacaa acacatacat attctacgtt tgcaaaacaa gattccatct 240
gtactctctc ctgacacaca cattaccttt gtctctagtc tttcactaca aattaggcct 300
ttgaaatata tatccttctc cactccattt gtagatagct tatctcccat tgtatcctat 360
cattgccaac catcagaggt aggggcacct tttctttctg acccacactc ctacacttac 420
tatttct 427

<210> 50
<211> 520
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1648034F6

<400> 50
caaatgcaaa tagtctttat tatgagaaag cagtgttatc taggaaagtc acatgctggt 60
ttctttctaa taaaatgaca aagcaggttt cttaaataat ttacaaaggg cagaaattgc 120
tcttgaacag ggctacccct cctggcacat ccacagtgct ctgcatgagc atataaatag 180
gtacccgtga gcccagggtc gtaagcctgg aaatatctcc tatgccttcc tccgagtccc 240
tggtagggaa aggagggatg agagtggggc cctcaagagc cttggcacca gaaacacagt 300
gggtgagtga ctctgcggat gactccccaa aaaccaggca cccgggtaca gagctaagag 360
ctctcaaata tctgatgcta gcattcatgt tatagatgag gcaaatagaa ggctcaaggt 420
caagtgtacg atgagtttct aagctcaaga gtcccctagg aaagcagaag gaacaattct 480
ccccctctgc aaggtctccc caagacactc tcaggctatg 520

<210> 51
<211> 320
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> Incyte ID No: 1674289T6

<220>
<221> unsure
<222> 31, 67, 69, 71, 75, 79-80, 83, 87, 89-91, 94, 127, 141, 166, 169, 172, 175-176, 182, 196, 200, 206, 219-220, 223, 225, 227, 243, 261, 270, 274, 276, 288, 293, 305-306
<223> a, t, c, g, or other

<400> 51
tgatatagct atttttgtaa gaacatcctc ntggactttg ggttaattaa atctaaactt 60
atttaangnt naacnaggnn aangtgnann natntgctaa aagaatcaag taataattac 120
ttagctncat tcctgagggt ngtatgactt ctagctgaac tcatcntgnt cngtnngatt 180
tnttaaatcc cttttngtan acctanttcc acgaaattnn aanancnttc acttcagaaa 240
ggnaaacagt tgttggggct nagcacttan tttncntgag caggaagnag ttncttccaa 300
acttnngcca tctggatact 320

<210> 52
<211> 619
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1685691T6

<400> 52
taaaaatgtg caaatcattt gtttttaatg gtatttatgt ttacctcttc tctacttttt 60
caaagccact aactttaggg cacatgtgga tttggtggtt tttcttaggc tacaaatcat 120
ttggtccata acaagattat caaatgacaa cctggccaga gcagatacaa atggttctga 180
cttaaatagg ttgttgagca aggagatctc acattttaaa gaatattttc agagggagaa 240
tttgagaagg ggggagaaaa aaacaaacag gaatgaacat aaaagtataa aattctagac 300
aacccactaa accagttagc aaaaagagga gctcttaatt gaaatagaga atttccccaa 360
aaaaaggtct gaatttattt ttaaaacatt agatttggaa aatacctaat ttgaaagttt 420
aattttcata tatacgtcaa acctgctttt agggtagttt agtcaaagct gaaacaaaac 480
aaataaaatt ctggcttata tatctgatac ttgaataagg actctgaaaa aaaatgttcc 540
cgtttttttt ctcgtcagcc taagatatat ttttgacatt acataaattt cagtgatatg 600
atctggctcc tatttaaca 619

<210> 53
<211> 566
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1693719T6

<220>
<221> unsure
<222> 133, 136, 522, 560
<223> a, t, c, g, or other

<400> 53
tcttctgtcg ccaagggtcc cggaccgagt acacggtggc agctggctta gttggtggac 60

ggcttggccc actcgacgtt gaggatgagg tggtcgtagc caaagccgga caccccggca 120
atggcacgcg canatnctc gcggcggtgg aagctgatga aggcgaacct tggattggcc 180
agtggtcttg tccttagcca ggtagatgcg ggagatggag ccgaaaggcc ggaagagctc 240
ctgcaggtcg gtctcacgcg tgtcctctga caagttggtg acacggatgg tggcgttgtc 300
gtcggctctg cggttgggct gcatggactc cccgcggcgg ctggccccgt cgcgcaggct 360
cggcggcaca tacttccctg tcttgttctg cgtggcctgc accggctcta gctctgggga 420
ccaaaagaca gtcaagttca acctcactgt ggcgcaggcg tggggacaga accgccccag 480
gaagctcggg cttcagtgtt gagccagcgc aggcactgtg tncaaaccac aggcagccag 540
tttgccacga ggacaccaan gtgaca 566

<210> 54
<211> 527
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1695667F6

<400> 54
gtgagaagga gtttctgtga ttttaactgc tattgtaata gaaaccagtt gattctgaag 60
agtcacctct tttcctggaa atattttggc tgtgagttaa gaggaacatt attttctccc 120
atgctggtga ctttggaaag gggttgtcat cagtgcaatg aacttggtct gggacttcct 180
tccttcccca tggactgggc ccctgggtcc tctgttgctt ctgggagggg ccttgggagt 240
acagtttact ctaggccagg acattctaag acatgtggaa accattggtc acacctgcca 300
gcaacagaga ttagtttgta aatgtctgtt tcaggtgttt cacagcatct agtgaatgac 360
cgttgctccc ataccagatt ctggtgacct gatcttaggc ttgacagctg tggtggagac 420
ttgggttggc agaagcctac cttggtgtgt tggaagaatg attgcttagt gcatgaggtg 480
cctttacagc ccatttgcag tagtctggct gaagcctgct gctttga 527

<210> 55
<211> 497
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1704982T6

<220>
<221> unsure
<222> 416
<223> a, t, c, g, or other

<400> 55
ttgtcagtac atgacaagaa aaataagctc cctggtccat agtggccaag acatatcatt 60
aacattgata tctaatacac aagttattgc acattgagat atcttaatag ttggataaca 120
ttcttatttt aaaacaatat gtgtggattg gagattttgc aatctaggca caaaagatat 180
cttctgatcc cttccgttat tcagaaagta attaaaatca actaaataga ttacaaagac 240
aagaagagca aaaaattgta atctcctggt gaacatatta tgaattggag ccaattactg 300
gtatgcattt ctattaccct tggcctttgt aatctggaag ctataaactt caaaatgttc 360
aattcagcat ataagtcatt atattagaaa attccattaa aaacctatag aaggtnaaat 420
gatttaaata tagacataaa atagtaagca tgaaggtgtc catatattaa tcctggtaat 480
ctaaaatatt attgggg 497

<210> 56

<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1713873T6

<220>
<221> unsure
<222> 20, 39, 56, 63, 74, 96, 105, 154, 166, 168, 171, 180, 183, 190, 274, 280, 286-287, 296, 303, 305, 309, 314-315, 324, 343, 349-350, 364, 381, 393
<223> a, t, c, g, or other

<400> 56
agaatgcatt tgaacacaan atataataat aatactacna acatacattg tgatanacat 60
ttnaaaatga taanatgtcc acctgaaaca atgcantgtt catanacata cattggtcat 120
gcacatttgt gccatttttct gtaattactg agtnacaatg tctgancntt naagcatgan 180
acntattgtn caaactgaaa ctgacatcag taagaggcct aacaagtgtt atcagaagag 240
gcctcacatt tgcgtaattt gctacatcag ttcncatttn attatnnaaa ttcacnttgt 300
ttnantggnt tctnntgtaa tganctggaa catgacattc ctncttaann gcaggcagga 360
ggcnacctct gcaaagtcag ncagttcggg agnattc 397

<210> 57
<211> 466
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1755881F6

<220>
<221> unsure
<222> 25, 359, 392, 402, 407, 409, 421
<223> a, t, c, g, or other

<400> 57
ctgagaaata agtatggtgg gggcnattcc ctgggttcag aactactata aagatcagaa 60
agggtgtctt attttaattt ctgtcaaagt cctttatcac ctggaggaca aagtaaacct 120
ggaggggtga tgtggattta tgtcttgtgt ggctgatgat ggtggatgtt ttcaggtctc 180
tctgaagagg ctatcatgga gctgaacctg ccgactggta ttcccattgt ctatgaattg 240
gacaagaact tgaagcctat caagcccatg cagtttctgg gggatgaaga gacggtgcgc 300
aaagccatgg aagctgtggc tgcccagggc aaggccaaga agtgaaggcc ggcggggang 360
atactgtccc caggagcacc ctccctgccc gncttgtccc tntggcncnt cccaactgca 420
natgtcacac tggaccacat tctgtagaca tcttgagttg tagctg 466

<210> 58
<211> 517
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1801605T6

<400> 58
tgcagattta acacatttct aatccaccac atacggatag cagtaggtat atttcttgac 60
atcattcagt ctatttcaaa aatagatttg attgtttaga ggcataattt ataaagcaag 120
ataaccaaat taaacaacag aattttaact aatattggct ttttgggatt tcttaagaaa 180
agattcacaa gcattgctca gctactggag aataattaaa tctcttcttt actcaggcac 240
ttttaatgca gtaacctcag gcttcatttt aaagtactgg ttaaaacgaa caattgcata 300
cccaaggaaa tcaaactcaa tagtggagta tttggcttga atcaaagccc acaatcccca 360
aaagaaatga gaagccaatg caaactgatt gacttgaatg aagagtattt ctacctcctt 420
ttcagtaact tcagtcccaa agcccttaaa ttctttgtag gcttcaaggt aagcacgcag 480
ccactgactc tgtagttctc tatctggata cagacta 517

<210> 59
<211> 469
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1809609T6

<400> 59
ttgatataaa aatataatta aaaaattttt tttggtggaa gacagatgat gctcaaattt 60
cttttccatt aagcagttgt ttctggtgat gaagaatgat ttggtaaagc agttaacaaa 120
acatttttcca aagacaccag agggtctgta tagtactgca aagcaggact gaatcccttc 180
tgctgcaaat actggattcg accttggtca atcagcaatt tacaaagatg ccctattttc 240
ttcttttctt caacactaag aagcccaggc aaacaatcag cgccatcatc tgtgattctg 300
tatcctccat catcatgctc ttcactatca tcattctgat tatcttgcct ctttgtggta 360
ctatttgagg tttccaaaga tgttttccgc atcccacaag ttgcccaact actcattcgc 420
tggaaataat ggaattccac tgctccaagg cctagagcct gaaatattc 469

<210> 60
<211> 121
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1851506T6

<220>
<221> unsure
<222> 7, 18, 22, 30, 40, 61, 63, 71, 75, 83, 90, 96, 110, 117
<223> a, t, c, g, or other

<400> 60
tgtgaantaa acaatttncc anattgcatn aaaaacatgn aacaattttt tgaaacatct 60
ntntaaacta ntganagtca canatgtaan atatanaggc ttctctctgn taaaagnaag 120
g 121

<210> 61
<211> 404
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 1856531T6

<400> 61
tccctactat caccattgtc atcatcacca tcaccatttc tatcataatc accaccatca 60
tcctcctcct cctcatcatg tccagtgtaa gctggagtgt agtggcgtga tctcggctta 120
ctgcaaactc cgcctcctgg attcaagcga ttctcctgct tctgcctccc gagtagctgg 180
aattacaggt gtgtgccacc acacccagct aatgttttgt atttttagta gaggcggggt 240
ttctccatgt tggccaggct gatctcgaac tcctgacctc aggtgatcca cctctctcag 300
cgtcccgaag tgctggaatt acaggtgtga gccactgtgc ttggtctatt tttaaagtag 360
tatcaaaatg tgcccacatg aaaatgtcac atactcattc ctca 404

<210> 62
<211> 584
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1873492T6

<220>
<221> unsure
<222> 506, 571, 579
<223> a, t, c, g, or other

<400> 62
tcaacttatc accaacatct aacatttttt agttcaggta catttgggta agaacattag 60
ggagaaatgt aaattaaata ctatgaaact atgcttttaa tgaaacatgg tctcagtaaa 120
atatggacac aaaagtttag tggttttatt gcattgttag aaaattatat tatgaaagat 180
ataaaaaaat caatgttttt ctgcttcttt tataatcagt atgccatctt ttaccattat 240
ggctttaatt ttcattctac ccaacaagtt tcaaagaata gtttattaca tgccttaata 300
aaacatttaa aatatttaca gattcaaaat agatgtttta taactgaaaa aagttcacct 360
gagaattcac cgtaacattg ccatttttt cccaagttgt taatgtgact gagtgtccac 420
atgcaacctg tatcgtctac tgcatctaac atacttattt ccttatttaa aattagttaa 480
gcagtaagct atagcaaact gttaanaaaa attacaggat ggcgaaccaa gactggtatc 540
cacattttgg tttggaatat gacaatttaa ncgaattant ttgc 584

<210> 63
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1879193T6

<220>
<221> unsure
<222> 3, 5, 16, 56
<223> a, t, c, g, or other

<400> 63
canangaggc aaagtntttc acatcataga cttcacttcc aactccttgg aatgtncatt 60
tctttggctt accggagaga ctagacagga aggccaggca atgcttaggc aactaaaatg 120
aggttggggg taatgctaac gtcaccctca cagggatggc cacggggact gttattcgca 180
agctggtttt ctagacctgt tagctggaag catggtgagc accatttctg gacgctcagg 240

ccgtgtcggg cttcagtcat ctccaccaca caggtacagc agcgctttct ggtagtcgcc 300
cttagtgtct tgctacaatg gcccaggaaa gaaaagaaac gtggtatcag aaaaaagccc 360
agactcctca ataacacaga agtagcctca acgcacaatg aagcttctcc catgacaaag 420
agaagactct gcaggagacc tgccctgata caaaggcctg gaaggcacac cca 473

<210> 64
<211> 127
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1880542T6

<220>
<221> unsure
<222> 6, 8, 10, 15, 29, 33-34, 43, 54, 64, 66, 70, 90, 92, 119
<223> a, t, c, g, or other

<400> 64
aatatntncn catanattag gtaaatgtna agnnttgggt ctntggagta taantttttg 60
taanantagn cattatttgg taacagaatn tnaggatgat ggaatgatgc gaaggtatna 120
cacattt 127

<210> 65
<211> 341
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1880666F6

<400> 65
tagcccctca ctgttttcct cttatccatg attttgtagc ttcttgagag agttccctag 60
gctctggcca catacaccac tgcgttttgt tgttgtgggg acactggagt acccctggat 120
tcccctctcc catctcctga gactgatctc tggagttagg ctgtggtgtc ttaaccttgg 180
ctgtacactt cactagcagt ggagcaagtg aatagatacc aagtcctgtg agcagtgctt 240
ggcatatagc aagtacttct taaatgttaa ctgttgctac ttttaaatct cttacctcta 300
ataagccgtt ccagatgctt cctgatggga gataaacact g 341

<210> 66
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1881257T6

<220>
<221> unsure
<222> 21, 382, 449
<223> a, t, c, g, or other

<400> 66

ttagagatac aaaatttttat ntacaattat tcagattaaa acatttaaac tttaggtttt 60
atttacaagt atttatctta tcttcctctc ctatttgacg ttttagctca agaagagtta 120
aaatggaatg catctgtaga tatatagttg ggaatgcgtg ttcagtcact tggctctgtg 180
ataataatct tatgtaccat gtcagacaga ttttcagact ccagatcctc tttgccatta 240
tctgaatttc ctgatgagat atagcaacca gagtcccttg ggcagtcatc taactgtgac 300
ttatttaagg agatgtctga gctcaaggat aggggctcag gttcattttc ttgctcttga 360
ataactgtaa atggaaaaaa anggcaggag ttaggtaaag caacacaaaa tcttattcat 420
ggtactcatt cactttcaag tattatccna ttttaactgg tctaaccatg act 473

<210> 67
<211> 259
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1900194T6

<220>
<221> unsure
<222> 136, 155, 157, 160-161, 166, 168, 170-171, 173-175, 177, 179-182, 184, 186, 191, 193, 206, 216, 218, 220, 231, 239, 244, 247, 250-251
<223> a, t, c, g, or other

<400> 67
tgggtggttg tgtacaggac ccccatccct cacccctccc agaaccaaag aagacaagca 60
gcgccaccaa atggctccct ctgcccaagt gaaagccgag aggtcagcgg ctggctgggg 120
aggcaggtga gcgcanacgg cacagggcag gggcngntgn ngtganangn ngnnngncnn 180
nncngnctgg ncnggggttg atgggnagat ggcggngntn cttgggtagc ngggtaggnt 240
tggnggntgn nggttggta 259

<210> 68
<211> 369
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1908377F6

<400> 68
catgagtctg ctattgttaa agcaacacaa atcagccgga gaaaacacct attttctcgt 60
gataaactaa agctttttct gaagcaacac tgtgaaccac aagatggagt cattaaaata 120
aaggcatcat ctctttcaac gtataaaata gcagaacaag atttttctta tttcttccct 180
gatgatccac ccacatttat cttcagtcct gctaacagac gaagagggag acctcccaaa 240
cgaatacata ttagtcaaga ggacaatgtt gctaataaac agactcttgc aagttatagg 300
agcaaagcta ctaaagaaag agataaactt ttgaaacaag aagaaatgaa gtcactggct 360
ttttgaaaa 369

<210> 69
<211> 202
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 1909861F6

<220>
<221> unsure
<222> 80
<223> a, t, c, g, or other

<400> 69
ctgcccgtct cggcctccca aagtgtgtga agggaacaag gagatatatt ctgggtgaag 60
ggtgatgctg gctgcagatn gtgagccctc agactcacta gtggacatgg aagatgagga 120
aaggggcccc agcatggcag tgggaagggc tggggacctt caggttgggc ccacaggggt 180
aggagacatt accgtggggc ca 202

<210> 70
<211> 334
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1911715T6

<220>
<221> unsure
<222> 187
<223> a, t, c, g, or other

<400> 70
acaaattatc aagaaaaaga caagccagta gaaaaacaga taaggatgca actaaacaat 60
tttcaaaaaa gcaaatcaaa tagccagtaa gcttaggaga agatgctgaa atgcattaat 120
attaagggag acacagacta agataatatg ctatcaactt agactcatcc aattggaaat 180
tttttanaag gtaaacatac cttttcgtga tatgaattga gggaacatgt actcttacat 240
tttgcttcta aaactgtcaa ttgttagaag ttttttttgga aagcaatctg gaaaaatctg 300
ttggaattta ttaaatgcat gtacccatcg aaca 334

<210> 71
<211> 215
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1930135F6

<400> 71
gttacttaca gtagcacaga aatgttagca tatttattta aatagtcctg cagcagagac 60
cctgcgattg taaagtgatt taagtatttc tgggtagtgt ttgtgattta cggatttgtt 120
actgaaaaac aaaaaaaatc actactgtga atttactact atgtaacctt gtggtcgtat 180
ttcattataa ataaaataag aattgctctt ctgcc 215

<210> 72
<211> 533
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> Incyte ID No: 1943678T6

<220>
<221> unsure
<222> 122-124, 384, 465
<223> a, t, c, g, or other

<400> 72
agggaggatc gatgccacgt gggccccagc tcacccgggt ggaggctggg agctgaaacc 60
gaacccaggc aggagatggg cgacggcgga ggtgcaaggc agggcacggc gcacaagacg 120
annncggccg ggcggggtgg attagaggtc actctcgccg tacagcgccg tggagaagga 180
catgtagtcc agagcacctg gcacggagtc ggggccggtg taggggggcca tccgcgcgat 240
gcagtactca gcctggtcgg gtggcagctc gcggcgcact cgtccatggt aatgtagttc 300
ttgtccccag ccaggatctt gaaggaagcc atgacttggt ctgctgtatc tgtgtcggct 360
gtctcgcggg acatgaagtc aatnaaggcc tggaatgtca ctacccccag gcggttgggg 420
tccacaaatg ctcatgatgc gggcaaattc tgctttctcc catgntgtaa cccatggaga 480
tcaggcaggc gcggaaatca tccgtgtcca tcatgcctgt cttctttctg ggg 533

<210> 73
<211> 367
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1963968T6

<400> 73
cattttcata ataaaatggt atatccacaa ataaaaatta aaaacaattg agaggtgggg 60
aaaatatcag tattatttta aaaaaataaa aatggcaatt gtaaagcagg cagtttcttg 120
ctcatgccac acgatatgcc ttcattaagg tgtactcttt ccggttggtg tgagcagccc 180
agatgaagag agcagaagcc atgaactgta agggagcaga gacacaagcc aggcagaagg 240
accatccaaa ttcaccggat acattgtcag ggagctctag tttctggtgg agtagttcca 300
ttccagcaac ataacaactt actgagccca gtgtacacag acctgcaagg agatggagaa 360
tgcccgt 367

<210> 74
<211> 469
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1973066T6

<220>
<221> unsure
<222> 204
<223> a, t, c, g, or other

<400> 74
agagcaatag gaaaaattaa atcatttccc acatattgtt ttcttaaaac agagcctaca 60
aggacatatt cagcaccaaa taaaaaagga aaaaaagaga aattacaaac agccatagaa 120
tataatctat aaagcaaaca tttaatattg cactttgttt tgctaacatt ttggatttta 180
cttttcctaa ttgaaaaatc aggnatctat cttgaatact ggaatacaac tgtgaacctc 240

acatcttatg tcaggaattg accaatattt ttaaaaaagt aatgcctcta aagaaataca 300
ttttaaaggg gaaaataaaa ctttatttga taaagtttta tacatttaaa gttttatcac 360
attttgtgat ccagtgccaa ttatcagaat attggtcatt cttgcttcat gtgttatttg 420
taagagtata taatgacaag tattcccaat gctatgcata tcaacaatt 469

<210> 75
<211> 510
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2016488T6

<220>
<221> unsure
<222> 499
<223> a, t, c, g, or other

<400> 75
gtagatataa cttccaggaa ataagttaca taaatataac agaataaatt cattttctta 60
agtttcaaat taaagatgat taagaaatac agctttatgt aaagtttctg ctttttctca 120
accacgccta aagaggaaag aactggcagc aggaacactt gctcctagga aacaaataca 180
acaaaattat aattaaaaag atcttcaagc tatcaaaatt tgtgagagaa ggatggtaag 240
aatgcagtag aaattaccaa atgacaaaca aaatcctatc agttttcagg ttggtcaaaa 300
gtaacttcat gaatatagcc tgtgatcagc atatgtccca tagcttatat gccctctata 360
cctccagagt tgcataataa acttttaaca ataaaacaac aacgaatatc aggttgtaaa 420
tatttatatt tctctcacat acaatgttgt atgagacact tgttttaata tgtatccata 480
ggattaatac tcatatggna gtataatgtg 510

<210> 76
<211> 65
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2025468T6

<220>
<221> unsure
<222> 5, 14, 18, 37, 51, 53, 59
<223> a, t, c, g, or other

<400> 76
gatanagaag caanaaancc aggcaaatac ccatcanaga cagtgacaag ngnagctgng 60
ggcac 65

<210> 77
<211> 454
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2054867T6

<220>
<221> unsure
<222> 49, 65, 275, 301, 306, 330, 360, 377, 429, 431
<223> a, t, c, g, or other

<400> 77
aaataaaaaa gggatcaatc aacatatatc ttagaagtcc ttccaagant cttggtatgc 60
aacanccatg gaggctgtga ccttttttcct tcttttctca gcctgcagtt catttaagga 120
tcaccggaga tgactcgtgc tctagttctt aaaatcaaac ttgttctgcc aaatccaaga 180
ccctgaattt gtccaaattg tagaaacatg cttttaccac ccgtccacca aaatacctcc 240
cattcaagtc aacaaccgct ttaattgctg attcnactct ctcaaattct aaaaatatcc 300
ntactncttc atcatcaggg ggcaccaggn atttcaaata tcacacattt tccaactttn 360
gccatatttt tcacatnctt ccttggtttc aacttccaag tcttcatcca cctctcccgc 420
accaaccang ntccttagta agaccacttt agta 454

<210> 78
<211> 153
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2073909T6

<220>
<221> unsure
<222> 24, 56, 68, 70, 74-75, 79, 111, 116, 123, 128, 131, 136, 139, 141,
146-147, 151
<223> a, t, c, g, or other

<400> 78
agctgggaaa atcagcggtt gganttggcc acacgctcca gctcgtcctt cttctnaatg 60
gcataggngn tcgnngagnc cttggcagga ttgatgagct catctgccag ntactnagca 120
atngtctnaa ngttcnggna ngcagnntca nga 153

<210> 79
<211> 89
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2102771T6

<220>
<221> unsure
<222> 54, 59, 66
<223> a, t, c, g, or other

<400> 79
aggaatagat gcttgggatg tattaatgag caaaacaata ccagtagcaa actnttacnc 60
gcaganaagg gtttcaaata ttgttggca 89

<210> 80
<211> 522
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2121554T6

<400> 80
gcaataaata aaaccagaca tattgacttc taaaaaacaa aaccaaacaa aaaaaaaatc 60
ccctaaacta tatacatcct acaggaatac aggcattatc aaatgtagaa atggtatcac 120
tctgaaagat ggggctattt acacaagtta caagaattgc gttgctgtct ttaagaagtc 180
tcctccttga ataactcata aactctaagg gagagagagt actggtgggg aagcggggtt 240
caaagaggag acatcctcca tctttattga tggacaagac agtctcaagg aaaaacatca 300
atatccaaac accgtattga gtcccttaac aaggctccac agatcagctg gctttcaaaa 360
agcctggaag ggtgctccac tcaggaactc ccaagagaaa ccatcttgtc cctcagccag 420
gctgggactg gcagtgaggc catgctgagc cagtggcaaa cccgtgggct gtgggtttca 480
caagacaacc tggctctgtg ctgtcacacc cagccttcaa ca 522

<210> 81
<211> 573
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2134473T6

<400> 81
ataaaacact aacaagttgt gatctgcaag ttaaaaattc caatatgaaa ttcctctgtc 60
ttcctattac cctaagattg ctaggtcttc gctaagacct ttgttattat gaatagcagc 120
aaacagatac atacattata gagccaacaa cagagatgaa taacatagct cagaatttca 180
ggaaatggac agaccagaac ttaatgctct tcaaaaagta aaatataaag ctatcctccc 240
acgtttagta cggagatcta attaaagtaa ccatctttaa atgatacttt caagtatttt 300
ccaaccatag taggctcaat agttgtactc ttttgtagtt gttccctttt tagttgttct 360
catagaaagg gattaattct gaacaattag ccaattaatt taaattaatt ttaatcatga 420
gcaatacagt acctagaaca catgtaagga tgaatctgaa cactttcccc ttattttact 480
ttgaggataa cagagaacaa tggaaaacac tatccttcag ttatcaaaaa ctcactgtgg 540
gcaatggtta ccaatacatt aaaggctgta ctg 573

<210> 82
<211> 431
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2208881T6

<220>
<221> unsure
<222> 49, 97-99, 157, 166, 225-226, 236, 242, 258, 279-280, 283, 289-290, 297,
307, 323, 368, 387, 396-398, 400, 417, 429-430
<223> a, t, c, g, or other

<400> 82
acaaaacaaa acaggcaatt gataaaggcg gcacaatggg gaaggagang tgaggtgtct 60
ccttagccac ccgacaccat ctcaattcag ttcaatnnng aaacactagg agaaacagac 120

ttaaataact atcaaggggt acagagttaa gagttcnagc cttccntctt ggggaaaact 180
aaggcaaagt aatactgaga aaaagtggag gaagccacac cttcnngtca ctccantgag 240
gncgactgga ggggacanag gagagaattc cccgcagann cancaagtnn gcgtggnttc 300
taaaccnggg actttggcag gtngggctgg gagctgatgg aatttgtaaa ccaggctgtg 360
gtcaaggnag gaggcaggag ctgtaancaa aggggnnntn acctaggcaa tgaaagncct 420
gtgcctatnn a 431

<210> 83
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2211623T6

<220>
<221> unsure
<222> 200, 223-225, 238, 242-243, 275, 278, 289, 299-300, 312, 315, 361, 376, 387, 389, 395, 404
<223> a, t, c, g, or other

<400> 83
gtgcaaatgt tattggctat tgtaaaaatc aatctcattt cctgaggaag tgctaacaca 60
gcttatccta tgacaatgtc aaaggcatag aatgctctat gtcacccact ccctgctgct 120
gttgtttctg cttatcccca cagcttacag ggaggggagt gacccccttg gttttccagg 180
aagcatcagt tcaggggcan cttcctgctg atctgttctt tgnnngagac gggcagcntc 240
tnnggacatg gcccagcctg ccccagaaga gctanttngt agtgtttang gagcccgtnn 300
tcaggaatct tntcntccga gcagctcctc cccgagacac tgtccagatg ctccagctca 360
ntgacagcgt tctgcnacac aatgggntnt gagangggcc tctngg 406

<210> 84
<211> 361
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2216715F6

<220>
<221> unsure
<222> 28, 57, 78, 245, 264, 266, 293-294, 296, 303, 320, 352
<223> a, t, c, g, or other

<400> 84
gtaaatctga attagtcaga acatctcngc ccgggaacat tttgtattta ccgatantga 60
tggccaagtg tatcatcnca ctgttgaagg aaactcagta aaagacagtg ctcggattcc 120
accagatgga agtatgggta gtattacctg catcgcttgg aaaggtgata cattagtgct 180
tggagatatg gatggaaatt taaatttctg ggacttgaaa ggcagagtat ccagaggaat 240
acccncacac cgaagttggg tgangnagat tcgttttgct cctggtaaag ggnncnaaga 300
ttnatagcat gtacaatgan ggagctgaag tgtgggatac taaagaggtt cngatggtga 360
g 361

<210> 85
<211> 196

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2239116F6

<220>
<221> unsure
<222> 122, 130
<223> a, t, c, g, or other

<400> 85
accactttta gcagcagatg aaagagtttc ttttcctgca attgagacag cactggtatg 60
acttggtttt ctgtttgcac cacttccatt ggttatacag gacatgggaa taactgctcg 120
anggcttggn tggcctttac ttgagactga ttttttcact gaggccacat gatcttcaga 180
gattgcaaga cgcctc 196

<210> 86
<211> 359
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2242596F6

<220>
<221> unsure
<222> 15, 23, 129, 145
<223> a, t, c, g, or other

<400> 86
ccgcgcttgg cgcanaggaa gcngcggcga acgcggcctg aattcccggc gccggcccca 60
gctcctctgc cgctgccgcc atgctcgact tcttcaccat tttctccaag ggcgggcttg 120
tgctctggng cttccagggc gttangactc atgcaccgga cccgttaacg cgttgattcg 180
ttccgtgctg ctgcaggaac ggggaggtaa caactccttc acccatgagg cactcacact 240
caagtataaa ctggacaacc agtttgagct ggtgtttgtg gttggttttc agaagatcct 300
gacatgacat atgtagacaa attgatagat gacgtgcatc ggctgtttcg ggacaagta 359

<210> 87
<211> 481
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2264984T6

<220>
<221> unsure
<222> 303, 321, 346, 351, 368, 417, 426, 459, 463
<223> a, t, c, g, or other

<400> 87
tattacatga tttgtgcaat tgcaaaggtt acatttttga tctctggttt tttaagaacg 60

cacgtcatgg tgagagtact ttggtcacca cgggaaacac aaccaaccaa gtgttttgcc 120
aagagacaca gatcggaacg ctcatcacaa cactgcatgg ctcattcagt gcaggttgcc 180
acaggtctac agtcacatgg ttaatgaaaa tccaaaacag gaccaacagg atgacacatt 240
ttctgttctt aatgctcatt gccattattg ctagtaagtc aatgggagga gaaataagct 300
gangatctga tgactgagga naagtctgac actagatttt gttccnatca ncatttatta 360
ggtcaaanga aagaacacag tttatgtggg ttttaataat gtagttttaa aaagaanttc 420
agaatnacca ttcagttttc taaaaataca gttgctctng tcngtatgta gaggaagctc 480
t 481

<210> 88
<211> 475
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2299164R6

<400> 88
gtatggccac tgccccacta tgttttattt tcttatgtaa gtttgcatat cagtcatgac 60
tagtgcctag aaagcaatgt gatggtcagg atctcatgac attatatttg agtttctttc 120
agatcattta ggatactctt aatctcactt catcaatcaa atatttttg agtgtatgct 180
gtagctgaaa gagtatgtac gtacgtataa gactagagag atattaagtc tcagtacact 240
tcctgtgcca tgttattcag ctcactggtt tacaaatata ggttgtcttg tggttgtagg 300
agcccactgt aacaatattg ggcagccttt ttttttttt ttttaattgc aacaatgcaa 360
aagccaagaa agtataaggg tcacaagtct aaacaatgaa ttcttcaaca gggaaaacag 420
ctagcttgaa aacttgctga aaaacacaac ttgtgtttat ggcatttagt acctt 475

<210> 89
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2299181R6

<220>
<221> unsure
<222> 328, 361-362, 368, 371, 373, 382, 385-386, 389, 395, 397, 402, 430
<223> a, t, c, g, or other

<400> 89
caaatttggc tgcaggctcc ccgagtgcct gggcttctct acccagggtc ctgtctgtcg 60
gctgcaccat acgtccctga ccacaaggca tccacgtgca caggagtatg cgcccagcag 120
ctgggaagga ggctgacctc agacggtggc ctgtggatcc cagctctgtc atttcctggc 180
tgggtgacct caacctagtc acccttttg agtcttgttt tctcagatta tgaaatagga 240
aaaatttcct tcctcgtgag ataagcacgt gccattagct attaaggaca cgcacataaa 300
tgagctgcat gtgaatccac acatgccntt ccatgaagac atcaaagagg atcatgtgga 360
nntttggngc ntnccgggtg gnccnnccnt aaggncngtg antggtcaga cctgtcctga 420
ggcttttacn aattg 435

<210> 90
<211> 74
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2328025T6

<220>
<221> unsure
<222> 56, 60, 63, 65-66, 69-70, 73
<223> a, t, c, g, or other

<400> 90
aagaaaaagc tggatctcag cattcaccag agcaaaattc aatggcaacc tgcacntaan 60
tcncnnttnn aant 74

<210> 91
<211> 460
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2370487T6

<400> 91
aacttttgtc tagttttgca attctcagat attccagtgc aaaaatagat cccattacag 60
acagcgtaaa gtgcttggaa tgagggccaa tgatgaacaa agagcacaaa aacagcttca 120
tcttagggta taagaaggga taatagcata cctaaatcct tatggaaata gaaacattct 180
aaggggatg caacaatttt gaaaagaatt agagcaatat ttctacagta ttacattatt 240
actagtagat aataagggta caaattaatg tctcaatatc aaagtggttc agtattacat 300
gacacatggc tctttggaaa atattttacc tgatatatac aaccacaaga agaaaacaca 360
gacaaatggc tttagtcaat gattactata cagtgaatga atgatgtgca acatttaata 420
gtcacaaagc atttgctttc agtacagata atggaataca 460

<210> 92
<211> 510
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2376728T6

<400> 92
aaacttagtt atttgtagct gtcagatgag aagtatttcc taattacacc cattcataaa 60
cactcatttt atcacttcaa agagcaccag tgtatttttt caacaaacca gaaagtaaga 120
aggtaggggc ttatttcatg taacagtgct attatgataa ggcaccacta ggtatatgaa 180
aaagccaaag tatttccaaa tcatgtgttt ttgttactgg tgtcttaacc attagacagg 240
atggttagaa aaaagctgct aacattatta atgaaccaca ttatagcccc tttcccacca 300
ttctgtgctt ttagttttac ttataacaga aatgaaaaca acaacgtagt acatgacctg 360
ttaaaacaaa catcttttcc caaccttcca agaaaataac ctaaaaataa acaagaaaca 420
aaaaatttat ctgatatatt tgcaaaagcc tatccctgta gaagagtgtg aggagtggga 480
gaaggcaggg ggacctactt tctatggaat 510

<210> 93
<211> 500
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2478811F6

<400> 93
caactgtatg ctactgggac agactgttgc atttgaattg tgatagattt ctttggctac 60
ctgtgcataa tgtagtttgt agtatcaatg tgttacaaga gtgattgttt cttcatgcca 120
gagaaaatga attgcaatca tcaaatggtg tttcataact tggtagtagt aacttacctt 180
accttaccta gaaaaatatt aatgtaagcc atataacatg ggattttcct caatgatttt 240
agtgcctcct tttgtacttc actcagatac taaatagtag tttattcttt aatataagtt 300
acattctgct cctcaaccaa atgcaatttt ttgtgtgtgt ttgaaagcta atttgagaaa 360
atttcatagg ttacatttcc tgcagcctat ctttatccac agaaagtgtt ttctttttt 420
taaatcaaga cttttaaaac tggatttcct cccatcactg ttttttgaag gtcctccaag 480
tccgtgttaa ggtaaatatc 500

<210> 94
<211> 557
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2486153T6

<400> 94
ctgttcatca agtcagttcc ctaatttcaa aaagccgaac caaagcaaag catgttgact 60
tacattgctt ctttagttct ttcagctgtt gtttaaactg tacaaatttt tcattatttt 120
gaaagtctgc atcagaattc ttgctctgta aagccaaaaa tttcttctct accaataatt 180
ttaaatctgg tatttttttct ggacgttctt ctttcacatg atttattgta gattgaacag 240
cctttacata atggtttagt tgccgatcca atgtagcaaa ttcaaccatt gccttgtcca 300
tactatattc actactcact tcagtctgac tttccacaag atccaaagca acactagaag 360
ctgtgtccat accagagttg atacaggctt ggaagttttt caaggaggag agagcagact 420
ctacaccact gaaggagatg aaaccagttg aacctgaatt tgaactggaa cgtcctggca 480
tcttgaaatt agtacctggg ccaccaaaac acagctggac tcaatatatg gggaaggtaa 540
gtgtcctcag tttttgg 557

<210> 95
<211> 252
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2493520T6

<220>
<221> unsure
<222> 3, 5, 8, 12, 15-16, 23, 25, 32, 50-51, 61, 63, 71, 73, 83, 85, 91, 157,
162-163, 167, 185, 195-196, 217, 221, 238, 246
<223> a, t, c, g, or other

<400> 95
aanantanca tnaannatat ctnanaacca anagtttacc atgtctatan ntatttgtaa 60
nanaacttat nanagtgtat ctnanaaaca ncccaaatta gggccaggtt acgtgtccaa 120
taagcatttt tcaaactctc cctctgggtg tgtgcgnaca cnncatnagg ctctattaca 180
cacgnatcca agccnnggcc tcacacaatg ccacaanttt nctgtttgtg cgaaatgnct 240

atatanaata ca 252

<210> 96
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2514029T6

<220>
<221> unsure
<222> 17, 23, 26, 29, 47, 53, 57, 60, 64, 92-93, 125, 130, 132, 134-135, 209, 226, 228, 255-256, 258, 273, 318, 337, 353, 384, 388, 390, 398, 400, 403, 417
<223> a, t, c, g, or other

<400> 96
ctcctggccc gggaganagc ggnggnggng gcgccgtatc aactgcngca ganacanaan 60
cgcncgtcgt tcagcgcagt gttcatcgac gnngcctcta ggtccctgga tcttggtctg 120
caggncgcan gngnncttgg ggcaatggtc actccagtct ccaaagtctc cccagctcag 180
cccaggcccc tgcagttcct cgccgtctna acagcggaag ctcacntngt tcgctgctgt 240
gttgtcaccg agggnngngg gtgcctccac gcnaagagca aagccactag gtaggcgccg 300
ccgcgacacc acagcggntc actccattcg ccccagnttc cagactggga ctntaccacg 360
tgcgtattgc ctaggacgtt cccncgcncn agtgcagncn tgntcccatt cagtgcngtg 420
tcg 423

<210> 97
<211> 342
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2518676F6

<220>
<221> unsure
<222> 35, 271
<223> a, t, c, g, or other

<400> 97
cgacagggag ggatgcgcgc ctgggtgtag ttgtngggga ggaagtggct agctcagggc 60
ttcaggggac agacagggag agatgactga gttagatgag actagggggc gggctggggg 120
tgcgagaagg aagcttggca aggagactag gtctaggggg accacagtgg ggcaggctgc 180
atggaaaata tccgcaggtc ccccaggcag aacagccacg ctccaggcca ggctgtccct 240
actgcctggt ggaggggggaa cttgacctct nggaaggcgc cgctcttgca taactgagcg 300
agcccgggtg cgctggtctg tgtggaagga ggaagcaagg ag 342

<210> 98
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 2545961F7

<220>
<221> unsure
<222> 124-125, 413
<223> a, t, c, g, or other

<400> 98
gcgggatctt caaccacctc gagcggctgc tggacgaaga aattagcaga gtacggaaag 60
acatgtacaa tgacacatta aatggcagta cagagaaaag gagtgcagaa ttgcctgatg 120
ctgnnngggac ctattgttca gttacaagag aaactttatg tgcctgtaaa agaataccca 180
gattttaatt ttgttgggag aatccttgga cctagaggac ttacagccaa acaacttgaa 240
gcagaaaccg gatgtaaaat catggtccga ggcaaaggct caatgaggga taaaaaaaag 300
gaggagcaaa atagaggcaa gcccaattgg gagcatctaa atgaagattt acatgtacta 360
atcactgtgg aagatgctca gaacagagca gaaatcaaat tgaagagagc agntgaagaa 420
gtgaagaaat 430

<210> 99
<211> 505
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2547841T6

<220>
<221> unsure
<222> 261
<223> a, t, c, g, or other

<400> 99
tgtcagtcta catccaaatt tgctactaaa aataaaataa agtcacatcc cacattagga 60
ataccgaggt ctgaaaaaca ctttttgagc caagcctatt gtataaataa atgactagtt 120
tcttttcata tcaaaattcc cataaaaaat tacattcccc cctccccagt tctacctgta 180
gccatgatga atgtaaaaat ttaaatatga cacatccttg tcaaagaaaa ggtgcaaagt 240
ctattaacag ctttaaaagt ngcatttgca gagtgtgatc atacagttat gtactcattc 300
ccaaagtgca aatattgcca taatttaaca ctgttttgat tcagttgcaa gaattaaaca 360
ttacacagga ttgaaaagta cacccagggc ctctatcagt gccctaaagc ccttcccact 420
ttggtctcct tcactaaagc agactccaaa gtgttcatca gagtttagtt tacttcacac 480
agcccagcga agtatacaac attat 505

<210> 100
<211> 293
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2578906T6

<220>
<221> unsure
<222> 268, 290-291
<223> a, t, c, g, or other

<400> 100
actttttttct ttcaacttcc ataacaaaat acagagctat cagatacccc tggaaaaaat 60
atgtatatta tacatatatt tctataacat tacatcatat atatataata tatatgcaaa 120
aatttgaaga ctttatagaa agcggaacat ctaaaaggca ctgcacaatg gagttaagat 180
tacttacatt ttatgtacat atacacactt tactctgctc aagcaggtaa ctagtgaagt 240
caccttttcac atgtaaatgt ctcattcnca aatccctgca tcacaattcn nta 293

<210> 101
<211> 527
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2591681T6

<220>
<221> unsure
<222> 178, 220, 231, 253, 274, 415, 421, 442
<223> a, t, c, g, or other

<400> 101
aatgtgtaag ttaatgtctg gaaagatgtt ttgaacagga tgcaggaatt agaaggcaca 60
gaaatgataa tataaaaatt tagatcatat atgaattttt tctaaatgtt caagctaatt 120
gctttcatta gtcatcctga actgctgcag gtttcatttc ccaccaggac agctgtgnct 180
tttaaagtaa aaatagtcat ttgtattaac tataaggaan aagtggcttc ngctggaaga 240
acttaccaac cgnaacactc ttgagcttat aganataact ttggtaagtg gcctctctta 300
aaaaggctgc tgaaagctct aaaatataag gataaaacat acggtttcag actgtacact 360
ttgctgctac aaactacatc ttgatgggat taagaggcta cattgattct tgggnttatt 420
ncaccaacaa tccatctctg anctacccat gggctgcatc tggaacaagg taaactccaa 480
gaataaatgg aacagtgggt ccctaaagca ctcttcccaa caagcaa 527

<210> 102
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2591814T6

<220>
<221> unsure
<222> 271-272, 390
<223> a, t, c, g, or other

<400> 102
aacggccatc tcactgttca catatataca cgtatgtaca ggaagaacct agtgtttcta 60
gctttcccgg cagaaggccc tgccagccca gagtccttag tcggataatg tatcacagat 120
acaacagtcg agcaaccacg agagcgttag tgcgacagag gcctctgtcc tccctcttct 180
caaagtccca tgattctgtc aaggtaatat tgccaataat cattcacatt tcacgtggtt 240
ttagacacgc aggttattca gacagacaca nngccaaaac aagcctcaaa gccagaacaa 300
aacaaaacaa aacaaaatcg aacataggta taaaaggtaa aatatatgta caaagtacac 360
agtacgtgag gtatacacgg cattctcacn atgcatgtta gtagtttgc 409

<210> 103

<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2601127T6

<400> 103
ttctggaatt ttcagaaaca aaacataaaa aaattatata ctttattaca aatggtaaac 60
tcagagtgct ccaaatctct tatttacaaa caacactggg caggataccc aaacaaacaa 120
acaagaaata acttacaaag gcatgaagct gtttattgac agtaatcagc tttcatcaaa 180
ttaaaaaata tatatatgta catacacagt taacgaaggc aggccagaaa gagttcatct 240
gtaggctcag cctcgctctc acaaacctcc ctcctgccgc ccctctctca caggcccatg 300
cctggttagc tctgacacca gctgaatagg aagcacggca agtttgagac tctcttgcat 360
aaaccataag cctcagtgtc agggacatgt gctgtga 397

<210> 104
<211> 509
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2603774T6

<220>
<221> unsure
<222> 334, 370
<223> a, t, c, g, or other

<400> 104
acacagtaca caggaggcaa agtgtttcac atcatagact tcacttccaa ctccttggaa 60
tgttcatttc tttggcttac aggagagact agacaggaag gccaggcaat gcttaggcaa 120
ctaaaatgag gttgggggta atgctaacgt caccctcaca gggatggcca cggggactgt 180
tattcgcaag ctggttttct agacctgtta gctggaagca tggtgagcac catttctgga 240
cgctcaggcc gtgtcgggct tcagtcatct ccaccacaca ggtacagcag cgctttctgg 300
tagtcgccct tagtgtcttg ctacaatggc ccangaaaga aaagaaacgt ggtatcagaa 360
aaaagcccan actcctcaat aacacagaag tagcctcaac gcacaatgaa agcttctccc 420
atgacaaaga gaagactctg caggagacct gccctaatac aaaggcctgg aaggccagca 480
cccaaaccat tgccagggaa gccttccag 509

<210> 105
<211> 497
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2630834F6

<220>
<221> unsure
<222> 8, 17, 35, 68, 195, 209, 212, 216, 224
<223> a, t, c, g, or other

<400> 105
gcgggacngg gaggtgntag atgtagaatg aaaantcata tatttatgag agaggttatt 60
ttaatggntg aattatttgt gtcacagctc agctttttgg aagacaaact caaacaccta 120
taatttcatt tatatttcta attcacttgg aacctttctg ctttatggta cctagaaaat 180
gataatttgt gtaanccaaa acttctaana tnaatngctt aatncttgaa atatgttatt 240
ggaaaatttt aagcagtgct taaacaccat taaattatta tgaacttgta attcagaatt 300
gagtaaagaa atatttttc tagtccttca tatattgaaa acttgccaca tgacattgta 360
tcgtcttcat tttccagaag atgcgttggt gtgccatagg gttctaactt ccttgaaaat 420
aggtttttaa gtcaattgta aatatacgta ttattgttaa aaagtaactt taaactgcca 480
cacatagctt tcaaaca 497

<210> 106
<211> 440
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2655030T6

<220>
<221> unsure
<222> 71, 81, 88, 118, 126, 168, 203, 205-207, 211, 288, 408, 430
<223> a, t, c, g, or other

<400> 106
tttaaaaaaa gaaaacctag gcaacacaga catatattaa aaacatcagt ttcaaatttc 60
ttccaagttt nctttaaat ncaggttnaa aaagcagatc aactctagat attgtagncc 120
aactanataa gaaatactga aactaacttt cctttaagaa atcttaanga ggcacacttt 180
ctagtggtga aacactcctc canannnaac ntagtaagaa ggtaagggta tgaacagcaa 240
agttgtgtaa cattttctta tttctataat tttacttatt ctggatantt ttagaaaata 300
aactcatgtt ttaactaaga ctgttaacca agtacaaaac tatttgttgt tgcatttgca 360
gatacagtat cctacaaata tgtgcagcaa gcccatgaag cacttccncc gtcgatactg 420
atatttcagn atttaatata 440

<210> 107
<211> 510
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2672695T6

<400> 107
gtgttgctac actcaattac aattaaggat gcagtatatc acctaaaaat cccattaaag 60
atgctattgc agtaacagta aaaatataca gttatattct accacaatac ccatttaaaa 120
gttagtttcc tacatgctgc ctttggccta aaaagttcaa aacgaattca aattaatttg 180
ttatttacga tttcactaat tcaagacttc atttaaaaat attgcttatt tagtgtaaaa 240
gtctgagata aactgtaaac atatttaata agttacatat ggttaacaat catatttggc 300
acctaaatat acatgtttaa ttcctaacac atcaagttta tcctgacaaa caaatttaca 360
aaaaacagta ataaagcaaa tatctgagag ataatactgc atctttaaca gtaactgtgt 420
acttctgttt aaatgtagaa tgtatagaaa atctgttgtg aatgaagtat gcacagttta 480
tcaatttttt aaaaaaccaa aaccaaaaac 510

<210> 108

<211> 575
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2693989T6

<220>
<221> unsure
<222> 67, 91, 102, 114, 120, 128, 148, 159, 175, 189, 195, 204, 206, 214, 231, 236, 251, 276, 359, 369, 390, 400, 414, 428, 433, 471, 477, 487, 501-502, 516, 536-538, 546, 553, 568
<223> a, t, c, g, or other

<400> 108
catggtagaa aaaaaacctg gaaagtcatt atactataca ttgagtgaca atcttccatc 60
gcagagnttc aggggagaat tgtgagaaga ncccatgagg antacagaca tttnatcttn 120
ggggaganat cttctggagc tgtgcttntc cttcatgcnt tctggtgttt gtttnctctc 180
caggaagana gctanatcca gggnancccc agantgcatt gaaaggcatg nttcanacct 240
atgctaatga nggctgattt cgcagtggct tggcanagct gtagcacata ccatgttgga 300
ttgtaaactg acctggcact cactggcact tgggatatgt gtgttgaatg aatgtacana 360
gcagagaant acttagaaag tatggaaggn gccattcagn ttccagagac taanctccag 420
gtcatganct ctnatcacag aggtgtctaa accctcgcta gccatggtta nctcagngtc 480
tttgtgncac catttataat nntccaagag tatttntgct gtatagaaaa atggcnnnta 540
ggggtnggag gtntgcaaga agaagatntg cttat 575

<210> 109
<211> 237
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2718743F6

<220>
<221> unsure
<222> 191, 213, 216, 232, 236
<223> a, t, c, g, or other

<400> 109
gataaatatt tgctgatgat aagacaaaaa tatacacgtc tattaagagg tctgcaatgt 60
ctgaacacag tgagggagaa aaatccttag agaaggtcgc ttaatctcaa ttacccaaag 120
tcattgcttg gcagaatatc tgtggtctat tatccttagt gaagtgacag gcttggagaa 180
gcagggaaat ntggggacca tgtgtgctat atnaancaag gactggtcac cntccna 237

<210> 110
<211> 239
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2721122H1

<400> 110
aaacgacagc cctgggggca actcttgtga cctcctgccc caggctccca gcaccatgac 60
ggtttcatac actctcaaag tggcggaggc ccgcttcgga ggtttctctg gcctgcttct 120
ccgctggagg ggaagcatct acaagctcct ctacaaggaa ttcctcctct ttggggcctt 180
gtacgctgtg cttagcatca cctaccggct gctgctgacc caggagcaga ggtacgtgt 239

<210> 111
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2735638T6

<220>
<221> unsure
<222> 457
<223> a, t, c, g, or other

<400> 111
aaagtgcata tagagtggcc acaggtttga cacagagacc ttggtgatgt aggctatgaa 60
caaatttaaa tggcaacttc attgctgcca ctgaaccaat cctgaatttg ggctcaacag 120
gtgaaaagta acaatatcaa acgaatacta aacagcataa caaaaagatt ttcagactct 180
tggtcataaa gaccgtaatc gttcacattg aatcaatgac taaacatttt tgattaccca 240
gctacctcca agcaaactga aaactgtcta gtggatcctg aagtccatag tgcctctagc 300
cgggtctttc aagtgttgca ccacagggtg atgattgatg gtaaaaacag ggatcaaccc 360
ttgtagatcg gtggtaagta tggaaaccct ctaagaacag tgcagcgtat gtgggtattc 420
agactggttg catacagcat tcaaaaccag tgctggnata gcttgcccaa agtg 474

<210> 112
<211> 443
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2739124T6

<220>
<221> unsure
<222> 403, 437
<223> a, t, c, g, or other

<400> 112
ttagatatgc aaagcaatgc agataccaaa atatgctttc caagtgtttt tggctgagtt 60
tgtctctttc agcagttctg accctaagat acatacttat atggaaaaag ctatggataa 120
aaataaataa aatacatctt aatcatcaat atatagacaa aattgaatag aaaaaagtaa 180
gaacattata aagcatgaaa atttacataa aattattcct gaatgtgagg gttgaaagac 240
tctagaggcc tgaaatctat ttgaaagaga aactttcaag aaaaggaaaa aagcattcct 300
ctacttagaa tagatatgct atgatctgat tctgaagcaa tgggattgaa ctgaatgata 360
tatgaggttc ttccatggcc cactgattta gatgatagca gtnaaaaata tattagtgaa 420
aatcatttaa tactggnaaa gaa 443

<210> 113
<211> 452

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2747213T6

<220>
<221> unsure
<222> 377
<223> a, t, c, g, or other

<400> 113
ataattttaa gaggtaataa atgcatgtcc atatccattc ttacctggcc tagaacaatc 60
aattggctat aagtcctttg actcataagg ccttcagcca tagggagtcc catggaagta 120
taggatggac ccgagatggg gagccatgcc accctagcaa cgctgtggga caaaattaaa 180
atttgctggt ttttgatgtt gcctctggca aatcttggcc agaaggggaa gaacgtaaat 240
gaaaatgaaa attcgaaggc cccccacaac tatctgaatg gacttcctct tcctccaggg 300
ttcaggccat gatggaaagt gggaggtggg acatgcttca ttatacctct ctggcattaa 360
cattcacagt ctattcnctc tgaagcttgc tacctggatg tttcatctgc atgataaaat 420
cccaggtctt cagacaaact caactaattg tc 452

<210> 114
<211> 225
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2752482R6

<400> 114
cccaaatctg tgtaaaatct gctgcaaagg tgtcatccct cttgtgtcat cactggggtt 60
agaggtgggt ccgaaataat cttctgtgtc cttcagttgg actctcggct gccaattgat 120
ctcttttca ttgccatctc tggggtggtt ctttggtttt ttgtgtgttt tccccttcat 180
ctctacctgt gaaagtgaaa ttctattgta aaaaaaagaa aaaag 225

<210> 115
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2757678R6

<220>
<221> unsure
<222> 134, 427
<223> a, t, c, g, or other

<400> 115
ctccagtctt cactgtggtt gtgccccaca gtggtcctca ggttggccag tggagaagga 60
agctctggtt ctcagtgtga tgcatccccc aggttggtcc tgagatgagg taaattctgg 120
tcatcactgt gaantgccct cgggggtctc cgggtcctga gtagaagcaa ggtctgtttg 180
tcactgtgga ttccccccctg ccaagggtcc ccaggtcagt cctgaggaga aggcagctca 240

gtctttactg tgatgcagcc tctagtgatc cccaggtcct gagtagaagg aaggcctggt 300
cctctgtgga ttcaacccag aggtctgtga gcagaatgca ggtactgcaa gcaggctaga 360
caaggtgtgt gcttgcaccc cttccttact acctaggcac agtgttggat ggtcagtgct 420
tcctgtntgt gatggccatg tgccccctct tgcaagtc 458

<210> 116
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2765789T6

<220>
<221> unsure
<222> 5, 24, 55, 69, 81, 193, 195, 204, 216, 223, 233, 250, 262, 267, 294, 333, 345, 386, 395, 453
<223> a, t, c, g, or other

<400> 116
gaaancagcc tttgtgtgat attncaaaca tttataagcc ttttagagat tcttncaaag 60
aacactgtna acaactcaac nacttttgat taaaatatca cacacaaaga aacacaatag 120
gagttgaaaa aattataaat gctagaagaa aaattctaat aacatttggt ggttacttta 180
cacatttatt tancncatat aaanccaaat gggaanccat ttnccttttt ttncataaaa 240
acaaagtttn cactggttaa anctgancta aaatcatttt atgtatgagg agancaaatc 300
taaattactt ccattttgaa aaaacaaaca ccngcttatt cattnctatt cattcaagtc 360
ataggcccca ttatttggat gatacnctat ttagnctaga agccagaaaa ggaaacatct 420
ccatctaata aagaagtctg gacaatgcaa aangtaaaag t 461

<210> 117
<211> 509
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2784742T6

<220>
<221> unsure
<222> 57-58, 82, 91, 103-104, 114, 132, 134, 149, 161, 173-175, 181, 207, 211, 242, 259, 263, 265, 274, 321, 327, 329, 349, 354, 358, 367, 377, 452, 469, 473, 495, 504
<223> a, t, c, g, or other

<400> 117
tttgaggatg acatctagaa cgcaccttgc tctgagactc ctcaataatc aaattgnntt 60
agaccaacaa tactgctaag tnttaaaagc ngtgaagcaa agnnaacgca tcanatagta 120
caggggcatc tnanagagct tccactganc tccccaatgg nttctatgca atnnnncctct 180
nttccataac tgtattaaca actaccngga naggaaagat gagattaaaa ataatgatac 240
tnaactgaat tgttttaanc cantncccca tatnttggga aaaattcatt tagttcaaca 300
gcaatacaac acaatgtgaa natattntnc ttagacacag atattccana attnaaanat 360
ttacaangca agtcaanata taaaaccata gtacactgtt aaataacctt taaacataca 420
tacattgcag ttttcaaata aagacattca tntcattgta caaggatang aanaaatcct 480
taaaattacc tactntagtt tatnatata 509

<210> 118
<211> 510
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2786881F6

<220>
<221> unsure
<222> 485
<223> a, t, c, g, or other

<400> 118
gattggtcat ttagaaacta gccaaaagtg agacttttaa tgtagaacat ttttcagaaa 60
tgggtacaaa gaaaaatgca tattactgta tatttcagag tgtttatgtg aaccttgtat 120
ttaattgaga gtcccatgta cgttctgcag ccttttgct gcttctatca tctgaagttt 180
gtgtagtaca aataaggcct ttgggattct taatgacatt tatgttaaaa tgttctcttc 240
tctttaaaca ccgttttcca atccacctgt cagggagtcc aaatcgtgtc tgtgttgatg 300
atgctatact ttgtagctag aaaaacaatt ttagtgttgt gggctctgta ttcagacttc 360
ctttttacaa gaccgatggg cagtgataga ttattttatc atatttaatg catgggaaat 420
agtgtgctga ggaagctatt aaaagtataa ctcagtgaat tgggtctgag ttttaaatga 480
gatanttcaa aattggcttg ccactgtaaa 510

<210> 119
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2790863T6

<400> 119
aatacaattg cttttaaaat gtagcaaaga gtcatttact actctcagaa gtggcacata 60
catggcatag aaaacaatct atagtcagtt aactattaaa acagaaactt gaaatttaag 120
tgacaaacat ttgtagcact ccctaaagaa ataggaaata aaaatgcatt tatccatatg 180
aacttgatta ttctgaatta ctgactataa aaaggctatt gtgaaagata tcacactttg 240
aaacagcaaa tgaattttca attttacatt taattataag accacaataa aaagttgaac 300
atgcgcatat ctatgcattt cacagaagat tagtaaaact gatggcaact tcagaattat 360
ttcatgaagg gtacaaacag tctttaccac aattttccca tggtcttatc cttcaaaata 420
aaattccaca cactatcaaa ctaaatcaag atttgctagt ggataaaatt accataaata 480
taccgtactc tctctgaaac agctacaaac atcttgtttt tgcaaaatat acaatggttc 540
tcaatctttc tg 552

<210> 120
<211> 518
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2799276T6

<220>

<221> unsure
<222> 422
<223> a, t, c, g, or other

<400> 120
ttggagtctg tggaatccgg gcggcggtgc tgctgagagg agtggaatgg gaaagcatgg 60
actccctttg ggcaggggct cctgacctca cacctcctcc cagagggtcc ctcacaaatc 120
ccacgagggt gttggagaaa gcaggctggg gctctagcct tttgggcagg agtctcggac 180
acaggaaggt ggtaatgggg taccccagga aacagcccca tgcctccgag atgggagagg 240
ggctggggca gagcctgtga gggccacagc agggtcagag ctgcctcctc agacctggcg 300
tcccagtggg aggaggtggc ttggggaggg gggtcaggag aagccaaccc gaagcaccgt 360
ctgggtgtgt gttccattgt gggtctctcc ggcattaggg gttagggctt gcataggaaa 420
antggctcag tgttcatgtg ttgggttctg ccagcaactg ggccactgcc agggaagccc 480
gactctgcat ccaggtgatg ccaacacatc ctctcgaa 518

<210> 121
<211> 536
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2801448F6

<220>
<221> unsure
<222> 185
<223> a, t, c, g, or other

<400> 121
aaagccataa aaataagaaa ctcagcctgt ggcctttctt tcttccaagg ctgggcttct 60
ttttttaagt gacttcatgc agtttgttgc ttttaaaaat ttgtccagaa tcgttttctg 120
cagaagcatg gtctgttagg agcttactgg ccgtagcaga agcaattgtt tcctgaattc 180
ttganattta tctttgctgt attcatttag ggcttgggag agtccgaaga taattcagtc 240
actgtcagat taataattct gtcaggacaa agaataccgt tatgattatt taatccttta 300
aaattgtggt ctccagagct tgttctcaga atggcccaga ccaagcctta attgtgatag 360
tgaatattaa tggtcacttt aaggagaaat tatagtccaa gatgaaatga acataaacct 420
gtttgccctg gctttcagtg gaagatgata ttagagacca aaatctggtt ctgaaggtgt 480
gtatcagccc taaggtgaac cagacttggg aaagattgtc ttaaaaatca atgagt 536

<210> 122
<211> 463
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2827489F7

<220>
<221> unsure
<222> 419, 425
<223> a, t, c, g, or other

<400> 122
aaagaaaaat tagataatat caatagccca tcttctaaca cattgcctag ctcattactt 60

tcaatacata ttttccaaac taaaaattaa aatctcaact ctttaagaga agtttcgtaa 120
ttttgtagta taagagatta tcctggcaat atagttttaa tgccaatata ttgaaactta 180
catgacattt cagtggtttt gcagtgtttt cccaagtatg gtacctttac cactgaaggt 240
acacagtgat ttctgggtgt taaacagatg aacatttttt attttaatag ctatacaata 300
taaccagcaa ataaaatcca tgttttcatg gatattattg cttagagtta gttaagtttt 360
aaaatgtgat ttaaaggaaa atattaagta ctagtacaag agatacccag tatgacagna 420
aatgnatagt ggaagggcaa aagacaagtt taaggaaatg ctg 463

<210> 123
<211> 329
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2833430F6

<220>
<221> unsure
<222> 5-6, 15, 23, 27-28, 39, 74, 159, 198, 264, 266, 282, 319
<223> a, t, c, g, or other

<400> 123
aaggnnactg aaganactga aanagannag agtttgtanc tgaaaaagaa tagggatagc 60
aaggaaaccc aganctgcat tcccctaagt ggggccatcc catgtgattg aattgtccat 120
agcttgccta tggtgagaaa tgtgcatgct ccgtgagcng gtctcttgaa acaggactta 180
tgcttcctct atattctngt taaatttttcc aaacacataa gttcactgag cacagatttc 240
ttatccagag acaagtagaa tctnancgca gactgttggc anagtttcca ggcacttagc 300
catgttccct tcctgactna aatccccaa 329

<210> 124
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2833844T6

<220>
<221> unsure
<222> 77, 105, 116, 142, 149, 152-153, 158, 165, 178, 189, 192, 194, 197, 199,
208, 221, 256, 304, 311-313, 319, 338, 344, 383-384, 392, 400
<223> a, t, c, g, or other

<400> 124
gctgagcatt cggtccacta acctgagtca tatccggcac tggtttctct agaaagggct 60
ccgacgggga atgctgntga caggcacttt ctgcggggtg ttctnggttt attggnggag 120
ctgtgcccaa ggtggtgatg ancggtgtng anntgaanac tggtngtgca agcccagntg 180
aggctgcant gnanganang ttggcaantg ctgaaaacat ngcttttgac caggatgttc 240
attggccagg tatcantcgt tcctggattg cttgtcggtc tccaaggcca acaccaggac 300
aacnatttag nnncatgtnc ccagtcaatt cccttggngc cgangacatg cctataaatg 360
gacgagactg ctgcatgttt ctnnggccat antcctctgn ccgattccca 410

<210> 125
<211> 250

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte LD No: 2835032T6

<400> 125
cctgaagatg caggtttctc tttggtatca tttttcttca gtttaaataa cttccttcag 60
catatctcat agagcaatcc cattgctcat gaattatttt atctgagaat gtctttattt 120
caccttcacc catgaagaat attttcactg gatataaaat tctgagttga caggtctttt 180
cttccaatgt gttaaaggca ccattccact aaattcttcc aaggattgtg atgagaagtg 240
catgggtaca 250

<210> 126
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2838139F6

<400> 126
ggggagaggg gctggatggc cgaggccgga acgggccctg gggtgcgggt taggaccgac 60
gtacctagca gcactggccc tcggacggtc cctgacccca cctcggggcg ggcgcacatg 120
agctgcttcc cacccaggga aagctggggt gctggccccg gcccctcgaa gagggcttag 180
gaggacggaa gctggccaga gatgaagggg ttttggcctg ggtgtgagtg acaaggaact 240
ggtgccagcc cctccctccc cggcactgag gcgtccgtgg gggctagatt attcctcctt 300
ttcttccaag ctgtcctgaa tccccacgaa ggccctggct cagctcttcc caccacaggc 360
acaccagg 368

<210> 127
<211> 486
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2838241T6

<220>
<221> unsure
<222> 179, 362, 411, 413, 428, 452
<223> a, t, c, g, or other

<400> 127
ttcatacata tccattatca gtgccttgaa aaccaaacaa ctttaaaagt tagcagcagt 60
ttctgcaagt acaaaaatac acatttatta cataacatat ggtagtaaaa tttgtcaaga 120
tatattatac aaactcaaag cattttagat aaagcatcag tctaatatat tatagattna 180
tggagtataa taaaatgaca tatagtctgt cttcaaatca tacaatataa tactttacag 240
caatattaac aaactattca cattaagaat tacaggagta tctaagggaa cacagatagt 300
aggaatggtt attaaaaaac ctcagcaact attttcttct atgcttcaaa ttgggtgaat 360
gnttttttac ctgctaacat gaaaaaaaaa aaaaggcaat ttcttccaga nanacactcc 420
aagccgtnaa gagcttcatt cacatcttgc angtctgact gaccagtagt atgccctaag 480
ggaaag 486

<210> 128
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2838993T6

<220>
<221> unsure
<222> 2
<223> a, t, c, g, or other

<400> 128
tnttatcagg aattcttcaa tggcattctt gtaatactat ttagttcatt tttataatta 60
cttcctaaga gacaaattgt cctagaagtg gggggtttct gagtaagaca ctggcatgcc 120
tggcaacatg caagaccttg tgcttcaata cttggaagaa gcacaaatta ctaagatata 180
attgctgctt ttgtattgct tataattcaa caggggaaat aaaagtaagt caaaggtaga 240
gcatgacaaa gacttctaga gaagtacagg tgataaccct gggagttccc aagaattcat 300
aggagctctg ggtgtgaatg aatgtcctct cgtcatgtgt atgccttaca gattagagtc 360
tgttgatgtt gggtctaaag ggtactaatg gagcaaggct gtcctcttac tgatagcagg 420
gcattatggc taatatttcg gaagtgaaat aaatccttct gtcaagaagg catagaaaac 480
aaagcagcaa gtccaaggta aggtttaaac ctcctagctc ttcttccctg gggcagaata 540
cccacagtca tagttg 556

<210> 129
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2849791H1

<220>
<221> unsure
<222> 116, 120, 128, 164, 179
<223> a, t, c, g, or other

<400> 129
gctgtgtggc cttttctctc ctgtgggcag gtccagtgat tgctgggatc acccaggcac 60
caacatctca gatcctggca gcaggacggc gcatgacact gagatgtacc cagggnatgn 120
ggcacaangg cccgtacggg aaaggacaga atagggcggg ggcnggctca ccataatcna 180
tacgcagtac atggcaaaga gaatccctga tggttatagt gtctccagag caaacacaga 240
tgatttcccc tcacgttggc gtctgctgta cctctcagac atctgtgta 289

<210> 130
<211> 505
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2858295T6

<220>
<221> unsure
<222> 452, 501
<223> a, t, c, g, or other

<400> 130
aaaatgaaca agttcaatca aaaacatccc aatggaaaaa aatcacacta agaataaaac 60
acttacagaa cggcaagaaa actgggttaa catataaatt tgtgtctgtt gaaaccagag 120
tacatgctag aaaacattaa cacagatacg acagagtgtg gttttttttt agaaatgggt 180
aatttctctc tccagtatcc tttcacttgt atgagatatt tctcctctcc tgttttcaca 240
aaccaagaaa tccccaggta ggccaatccc agaggtgcca tttagcagta tgcagcagcc 300
cagtttcagc ataacaaaac atgccttggt agtggctctc tcatgcaaat aaaagaaagc 360
ttaagaaatt cttgttgtag gtggattagg caaggctgcc attcagctgg tataagctaa 420
aagtaaaaaa tcaaaacgct caagaaaacg gncacaattt tggaatgtta aagatgtctt 480
tataaagttt ttttcaagac ntcat 505

<210> 131
<211> 380
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2932975R6

<400> 131
gcagggacaa gttacaggaa tgttctccaa gcagcaatcc aaaagagtct caaggatcct 60
tcaaataact tcagggtgag tctggagaaa acatatggaa tcccagcatg aaaccgtttc 120
agagttctaa taaaaatatg catattctca cagcatgtac tttatttaat atctgaaaaa 180
attgtgatag aaatgtgtat ttgttttaaa aacgtgtaac ttcttatatt tcaaagctaa 240
tacatgttca ttgagatatt tggagactat agagaaagat aaaagaaaat aaatcaccta 300
tattccacta tccaaagaca accactgtta gtattttggt atatttcctt ctagactctt 360
ttttatgtgg gtttgcactg 380

<210> 132
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2965657T6

<220>
<221> unsure
<222> 7, 36, 70, 100, 127, 147, 160, 165, 177, 186, 192-193, 199, 220,
228-229, 235-236, 240, 258, 261, 267, 271, 273, 281, 283, 285, 289, 297, 300,
308, 312, 317, 322, 324, 342, 348, 361, 363, 376, 385, 391
<223> a, t, c, g, or other

<400> 132
aaagatnatc acaacaaaat atacactaac ttaaanaaca aaagattata gtgacataaa 60
atgttatatn ctctttttaa gtgggtaaaa gtattttgtn tgcgtctaca taaatttcta 120
ttcatgngag aataacaaat attaaantac agtgatagtn tgcanttctt ctatagnatg 180
aacatngaca tnnccctgna gcttttagtt tacagggagn ttccatgnng ccacnnactn 240
aactaattat ccaacacntc ngttatntcc ngnctcaaat ngntncacnt tccaccnatn 300

aactgagnaa gnagcanttc angntctcct tcattttgct anaaagcntt ttttcttttg 360
ncnaaatgcc aagtgngaaa ttgtnttttt nc 392

<210> 133
<211> 298
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2967286T6

<220>
<221> unsure
<222> 28, 35, 69, 94, 184, 201, 229, 239, 252, 260, 265, 284
<223> a, t, c, g, or other

<400> 133
gtcacttcca aaggcccctc agaacganca acagntgaaa cccgcggggc ggactccgtg 60
ttgaaccgng gacagcggca accacagcag cganacggac ctgtgctttc caccaagaac 120
agattccgca gcgggacagc agtcactttg cagtggtagt aatttattcc ccacacaaaa 180
cacnccagct aaatgccctt naacccggtc caaggaattc tggaagtgnt ctaaaagtna 240
aaatccaata tnaaccatan atttngtggt ttcaatcaaa cagnactctt ctaaatca 298

<210> 134
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2994210T6

<220>
<221> unsure
<222> 66, 202, 286, 292, 359, 374, 381, 396, 435, 442-443
<223> a, t, c, g, or other

<400> 134
accgaggcat agttctgacc aggtactatg tctgcagggc ttttgaaatt aaagaaacag 60
tccagnaggg ctccagtcag acccagaatg acaccagcca cacttgtgac tggcagagat 120
aacctctttg atcttcagca attttaaaag ttcttcatcc taatttctga gtatcataaa 180
aagtaaaaag tactttcatt tnatttttcc tttgaaaatg tttttagtgg caaacaggac 240
tacttgtttt ccttacttca tttttataag catagtagtt atatgncaat tnacttaaaa 300
ttagagaggg aaaccccaga gacctgagtg gcactgccca tccactgaag gcccacatna 360
ataggtactc atgntcatgt natcacgtct acaaanagca ataaaatgat gtccgtaaat 420
cggaagtaca gcagnagcag tnnatacata tctgatatgc tttcacacca gga 473

<210> 135
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2996094F6

<220>
<221> unsure
<222> 378
<223> a, t, c, g, or other

<400> 135
gtcacaaaga gcttcaacag gggagacagc caccctcttg tgcagggccg gccagccttt 60
gcccggcacc gcccttgcct ggtttcaaaa gcagcctgcc cagcctccca ggctcctcgt 120
ctacggtgca tccgttaggg cccctggcgt cccagacaga ttccgtggca gtgggtctgg 180
ggcagacttc actctcacta tcgacagact ggaccctgaa gattttgcga tgtatttttg 240
ttttcaatat gagtctttac ctcacacctt tggccagggg acaggctgga catcaaacga 300
actgtggctg caccatctgt cttcatcttc ccgccatctg atgagcagtt gaaatctgga 360
actgcctctg ttgtgtgnct gctgaataac ttctatcccc agagagggcc aaagtacagt 420
ggaaggtgga taacg 435

<210> 136
<211> 580
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3000067T6

<220>
<221> unsure
<222> 217, 232, 287, 329, 344, 353, 366, 414, 443, 459, 466, 471, 479, 483, 485, 487, 495, 531, 535
<223> a, t, c, g, or other

<400> 136
taagacagag tgcactaaat ttaactttag aaaaaattag ccgttgttcc tgaattgttt 60
ttgttttgct tttcattcaa cgatatcaac ttgtaacttg tgtcacttga gttttaattc 120
agcagtaaat cacctccact ccatatctaa gcagcgttgt cccaaaaaca aaaggggctg 180
aggataattc agctaatgga tgtccaaggt tgtgctnggt ttatttcttc anttgattgg 240
gtcttatggc atttcatatc ctctatcttc aaccagaatt ttttttnttt ttacttaaag 300
taaatgtggc tttgttagtt tctaaagant gtacttttct tgtnttactt ttntaaaaag 360
tctttncatt tcaaaaaaaa agttttgcat ttgtctcaag agactcaaat aggnagatca 420
gttttcaagg cactcacatc aanttgaatg gcagtagana aactgnccta naaattatna 480
ttntntnttg tgctntatag gtgccaggta ttgtgaatgc cacgcttagc natantggac 540
actcaatctc agctgtcccc ttacagttta acccacctct 580

<210> 137
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3116117T6

<220>
<221> unsure
<222> 80, 82, 130, 244, 263, 277, 291, 303, 318, 327, 343, 358, 372
<223> a, t, c, g, or other

PA-0020 US

<400> 137
tccatatttc aaatgcatta atgtggtcat gaaaaaagta atcagataga tgtttaatag 60
ttaagcattg tccatttgan tngcagagca ccccaccctt cattcattcc ttcaaccaac 120
tactcaagtn aagaacatgc ttacttgtta ctggttggtc ctgttgccaa gacatcggac 180
tgtaactttg gaaagaaccc ctgctcatat ttgccttgac caattttcat atcaagtaga 240
tgtnggtgga ttgcagtgtg atncattttc atcagtntct gctcaattga ntgggctgct 300
tcntttaaag tgctgcantt ctgatanata gatgtccgca agngggtgcc cttacgtnat 360
acagccttat cntatcaa 378

<210> 138
<211> 354
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3119119F6

<220>
<221> unsure
<222> 49
<223> a, t, c, g, or other

<400> 138
gaaattctta acatcatcaa aaagttaaat ttgttttcaa taatttgtng gggggaaact 60
tagataaaat taactaacac cttgcattac agaattctca gtcatgcttt catggctcag 120
acctgaccag agactgtttc tgccaagttg agatctcccg cgagaaaaca tccaaaagtt 180
ttgtcattat ctacctattg ctcggaaatg gtttattctg cctgctaacc actcacaaac 240
tttgatatga taacaaagac taactgctgc ttacaaatgc tcgtttgata tttaacttgc 300
tattttctat tcagggcaaa ataactatct tgaaaatggt tgttaattct cagc 354

<210> 139
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3151807R6

<400> 139
gtgctcaccg tgagcggctg gtacctgtcc cctgggaact gcaagatgca caggaccttg 60
tgtacctgtt tgtgatcaca gccgaggacc agcgaggtag cattaccaca tccacacagg 120
gcttttacca taaccgcccc agtactggaa cgaggagctg cagatgatga gggacctacc 180
caacaagaac caacctgagc agctgcttca agaaaaagcc atgttcaagg tgcctgaatc 240
ccctggtaag tgagtgacag cctcacagcc tcaggcccac ctggctcctg ctggaaggtt 300
ttcttgtgct cgggagagaa gtgagggaag ccggcagtcc cagccctgtc aggtgccctg 360
aaggcccgtc aggtttgccc tgcaaggcct tctagcattc tgcttcctgg gagaccatcc 420
cccacctttc tccggcctct gagactt 447

<210> 140
<211> 195
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> Incyte ID No: 3208407H1

<220>
<221> unsure
<222> 105, 110, 113, 119-120, 147
<223> a, t, c, g, or other

<400> 140
ctctggtatt catgccaaag acacaccagc cctcagtcac tgggagaaga acctctcata 60
ccctcggtgc tccagttccc cagctcactc agccacatac accangtgtn aanaggagnn 120
caccgcgctc gcgtgtgata aagggcnccg ggcccgtggc aaggcagggc ttcgcaggag 180
atgatgcccc ccggg 195

<210> 141
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3211415T6

<400> 141
tcccaaaccc ctccctgtga cttgcctctt ctcttgtgct actttggttg tcatcgtgtt 60
catcactaga ttttagatgt cctcggtgtt actgacggtt tttctgtcca cctcgtcctg 120
cagtctctct tctcctcaag tttgaaatgc ttcatctcat cgggttgggc cagaaaaatt 180
tggtccataa aaggtgcata atttctttcc attcactaca tggctgcaaa gtcaatctgt 240
acgtagagct gtctcactcc agcctgagta aaaatattat gtgtttggct taaaatccac 300
ctagcatcag catcaggtgc tactattaat ttcaaggtcc caacataaac gtcagaacat 360
aaagtccaga agtgctgttc ctgtaaactg taaactcctt gcaactgctg taccctctga 420
tagcactgag gcagactatt ttctaatagg ggaggagttc tctgcattaa tattccaaca 480
gattctctta aaaga 495

<210> 142
<211> 346
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3238201T6

<220>
<221> unsure
<222> 7, 20, 27, 34, 39, 61, 78, 82, 91, 98, 103, 109-110, 114, 138, 141, 149,
156-157, 165, 189, 233-234, 280-281, 285-286, 288, 291, 309, 319, 321-322,
328, 341
<223> a, t, c, g, or other

<400> 142
taataanaaa tataacagan ttgaaanatt taantacant cactacccac tccagtaatt 60
natttaagtc ataccaanta tngaatatga naaataantt canaagtgnn attnctttaa 120
aatacactac ttccactntt ntaagtatnt tacatnnatg tatanattct atagtggaag 180
cagacaatnc tctctaaaaa cattatctcc ttaaaatctt gcaggtgcat atnngagcca 240
caggcaatct ctgacatata aaattgcagt acaggccttn naaanntngc ntttcactgg 300

tacaatacna caaccaagnt nnataatnac tgtacagtgc ntagac 346

<210> 143
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3254006R6

<220>
<221> unsure
<222> 396
<223> a, t, c, g, or other

<400> 143
gttgaagagg gggaagttag ctggagacac tgctgtcagg atcagcactg gggcagagag 60
gaagcagctg cgtttcggtg gtagaagtgg gaggggaagg aagaggggtc tgcaagggtt 120
ctgtacatcc tgcactgaca gaactcaaca gcccagccct gcctggctgg ccctggacaa 180
gatagaccct gggcagcaac tgggagaagg gaagaggaga aggggagctc ctggggccag 240
aatcattcag cagaggctgt ggtttcagtg catacctttg tgtgaaagga gtgcaccaaa 300
tcattgagtt gggctgtaat tccaagggct ataattataa ttccaattct tttttgtttg 360
taatatttca aattcttggt tcctagatat tgatcnagca aaaaattcct ccagatggca 420
atagcctctt ttctcctgca gctctctccc caaccttagc cttacaaagt a 471

<210> 144
<211> 180
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3255002T6

<220>
<221> unsure
<222> 9, 19, 26, 28, 41, 61, 71, 73, 80-81, 87, 95, 152, 157, 167, 169,
171-174, 179
<223> a, t, c, g, or other

<400> 144
ctttggaana agtgatttng aagcancngt gtatcctctt nttctgccct gggacattca 60
ntacggtaac nangaatctn nggctancgg tgctnttaac ttctgaacca cgacttaagt 120
caagagggag acagggtccc agcttctcaa gnggcanatg tgcaacntna nnnnctacnc 180

<210> 145
<211> 185
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3323143T6

<220>

<221> unsure
<222> 37, 44, 66, 69, 72, 90, 96, 102, 110, 120, 122, 129, 135-136, 142-143, 150, 162, 165, 168, 173-174
<223> a, t, c, g, or other

<400> 145
gaggggggaac aattatatag aactttcgga gatgtanatt cttnggcctt cgacattctg 60
gagcanaanc gnctacaagc attttgaaan attctntgcc tncggcagan tttcgtgtgn 120
gntcactgng gactnnatcc anntgccttn ctgcttttaa tnttnctnct gcnngacctc 180
cttct 185

<210> 146
<211> 466
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3365533T6

<400> 146
ttccaaaatt cttcaggatg tttaatgttc aagtgtccat attcccagtc ccactggatg 60
cctggcagga tgcaaccatc tgaatgagtg gaagtataat gtttgcacca ggtattatat 120
taggagcctt gaacccagaa tatgtctgat taagtctttt agcccaataa tttgccactg 180
ctgccaagtc tggtaatttt gaaggagaaa gttcaaccat aacggggtga tacagggcac 240
ccccgtactc aaaaaacttt caaagtgctt tctaaacaag tttctctttc tccttgaata 300
caacgtcagt cacaactgat ggcagtacaa tcgatccatc catacactgc tctaagaaca 360
tcttgatggt ataatatgct gtcattcatg ctctacctgc tactagttta atttggtcaa 420
gtagctcttt ccctggagac tcaaatttct actagactca aattct 466

<210> 147
<211> 290
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3421032T6

<400> 147
caaaacaaaa caggcaattg ataaaggcgg cacaatgggg aaggagaggt gagggagaag 60
agagaaatgt ggcaggggtg aggggaacct gggtgcaggc caggctgcct cagcgatacc 120
ccagggaggc tagtgtggga aggaaggacc aggaatccct gaaaggacca ggaggcaacg 180
ggacctgagg gggtgttggg gaggcaagga ggggcggaga gcgaacaggt ctagaggaga 240
agggaaacca gggaagaggg gaaaggaggg cggcggcagc agccgggcgc 290

<210> 148
<211> 446
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3425501F6

<400> 148

gaaaagaaaa agataaggaa agaagagaga agagagacaa agatcactac agaccaaaac 60
agaagaagaa gaaaaaaaag aaaaagaaat ctaagcaaca tgactattca gactatgaag 120
acagttccct cgaatttttg gaaaggtgct cttctccact aactcgatct tctgggagtt 180
ctctggcttc acgaagcatg tttacggaga aaactacaac ctatcagtac ccaagggcaa 240
ttctatccgt tgatcttagt ggtgaaaact tatcagatgt agacttccta gatgattctt 300
caacggagag tttgcttctg agtggggatg aatacaatca ggactttgat tcaaccaatt 360
ttgaggaatc tcaggatgag gatgatgctc ttaatgaaat tgtgcgatgt atttgtgaga 420
tggatgagga gaatggcttc atgatc 446

<210> 149
<211> 444
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3434684T6

<400> 149
aaaatgatgc attataaaac ttggaagcaa ctttatacaa attccaattt ttaaatatgg 60
ttgaacaggg tgccctgggg gttaggacac tggcaggaag tctgattagt tgctgggatg 120
gtcccatcca tgaagcactg gacacatgct gggaaccatc tgtgcataaa tcagaagagc 180
caacaagagt gggaacagga aaggtctgca aatacgcata tggacttgaa gatacaacac 240
cagctcaggt aatatacagc aggcggagga gaaatgaaac aggagaaaca ggacaaagga 300
gaattcatga catgatcaag aaacccccttc tcctaacccc ctatgtccta aaacccacaa 360
ccatacagaa agaaaaaatg gaaatgcaga caggttttta gttctatgct gtttaactgc 420
tgtaagtgag agtagtacca tggt 444

<210> 150
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3471751T6

<400> 150
acatgtacag tcattactgt gctacattgt tattagacac aaaatggtat gtgctgtact 60
ttggtgacta ttatttccat cagttttata catggtcttc cttatggttt aattattctt 120
actcaaaaca caaaaggcat ctcttttctc tctcttatgc accaagcaga gtatatagct 180
gatgtcttgt gagtgtggag aacagccagg gtactccaag acttgtcttc ctctttcttg 240
cctttcttcc agtgtggcca aatgaactcc ctgtttcctg tctcaggtga tttccatttg 300
accctgatgt tccctttta ctatgtgctt tattccgtgc cccccagccc aatgtttccc 360
tgagcagccc ttctcttttc ctactcttcg tcggctggac cagttctaga t 411

<210> 151
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3475326T6

<220>

<221> unsure
<222> 5, 7, 10, 14-16, 19-21, 25, 41, 46, 53, 56, 59, 64, 66, 68-69, 71, 73, 75, 81, 83-85, 93, 100, 116, 118-119, 128-129, 132, 140, 148-150, 180, 208, 307
<223> a, t, c, g, or other

<400> 151
taaancncan gacnnnttnn nacancgcaa aatgagacta nagggnatgt cantancgna 60
tttnangnnc ntntntttct ngnnnggatc ttnaaaaggn gagatagcag gatccncnna 120
tgacttcnng anagtaatan cagctttnnn aaccgcaggc atcgtggagc ctgcatgggn 180
acgcatccag gccacggcct tcctttcnag aagctcccat tcacacttca agtccttacc 240
aatgctgtgc agccagatca cggccaggat ggtggcccag cctgaggaat ccacaagctc 300
ggcaggntgt gcagccatta tttcttccaa actcatacct aggatcttgg ctagatcttc 360
attcagattc caggaaccat ttgcattttg 390

<210> 152
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3480489F6

<220>
<221> unsure
<222> 216-218, 220
<223> a, t, c, g, or other

<400> 152
gactaaggga catttatggg acgtgtttaa caaggtggga aactagttcc cccaaccttt 60
ctatcgggtt cttgaccctt ttagggagac agcggacgag gttcgtaagc caggaaaact 120
agctccctgg actccctggc gagtgcgtgc gatgaggaga ggcccgagca ctttgggggt 180
gcacggtggt ggtgggggga atgagtaaaa gcgcannntn atcgtgaacc ccaccccaga 240
tgattacctc gccgttggtg atgttgatcg ccaaatagat gtccccgaag gagccagacc 300
cgatcttccg taccagttta tatttccctc cgacaatgaa ttcagccttg gagccgctgc 360
tactcgccat cctgagagac gaagatggag gctggggcca agccccggac acctctggga 420
agaggacgga 430

<210> 153
<211> 519
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3559834F6

<220>
<221> unsure
<222> 14
<223> a, t, c, g, or other

<400> 153
gaagactgga agancacctg ggctgtcatt gagctctggt gccaggagga atggacaaga 60
tcttaggagc atcattttta gttctgtggc ttcaactatg ctgggtgagt ggccaacaga 120

aggagaaaag tgaccagcag caggtgaaac aaagtcctca atctttgata gtccagaaag 180
gagggattcc aattataaac tgtgcttatg agaacactgc gtttgactac tttccatggt 240
accaacaatt ccctgggaaa ggccctgcat tattgatagc catacgtcca gatgtgagtg 300
aaaagaaaga aggaagattc acaatctcct tcaataaaag tgccaagcag ttctcattgc 360
atatcatgga ttcccagcct ggagactcag ccacctactt ctgtgcagca agctcccaga 420
cgggaggagg aaacaaactc acctttggga caggcactca gctaaaagtg gaactcaata 480
ttccagaacc ctgacccctg ccgtgtacca gctgagaga 519

<210> 154
<211> 293
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3562407F6

<220>
<221> unsure
<222> 59
<223> a, t, c, g, or other

<400> 154
aaaaatatct attaaaagta ttatattctt attggcttca tagtattctc ttgcaaggnt 60
gcaccattat ttagtctcct taatgttgtt tccaatctct tgttattgag gactgaatat 120
acttgcactc atatcatttc atatatgtgt aaatatatct gtaggataaa ttcctagaag 180
tggaagtcca aattatatat atattttaaa ttcttgtgga tatatcagtc catttacatt 240
cctcccaacc atcaataaaa ctgtaaaaac ctaaagttat ccaattagaa ttt 293

<210> 155
<211> 608
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3586531F6

<220>
<221> unsure
<222> 528
<223> a, t, c, g, or other

<400> 155
gcgtttaaac ccaagccgca gccgctgctg tcgccgagct cccggagctg ggtgggggtg 60
ccccacgctg aaagagagtg atggagtgcc cagtgatgga aactggctca ctttttacct 120
caggaattaa gagacatttg aaagacaaaa gaatttcaaa gactactaag ttgaatgttt 180
ctcttgcttc aaaaataaaa acaaaaatac taaataattc ttctattttc aaaatatctt 240
taaagcacaa caacagggca ttagctcagg ctcttagtag agaaaaagag aattctcgaa 300
gaattacaac tgaaaagatg ctattgcaaa aagaagtaga gaaactgaat tttgagaaca 360
catttcttcg cctaaagcta aataacttga ataagaagct tatagacata gaagctctca 420
tgaacaataa cttgataact gcaattgaaa tgagcagtct ttctgagttc catcagagtt 480
cctttctact gtcagctagc aagaagaaac gaattagtaa acagtgcnag ttgatgcgtc 540
ttccatttgc aggggtccat taacttcaaa tgatgatgaa gatgaagata agagaaatgc 600
agtgtgac 608

<210> 156
<211> 525
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3685559T6

<220>
<221> unsure
<222> 360, 520
<223> a, t, c, g, or other

<400> 156
tctctaagcc taaccaaatg ctttggtgaa tgatgcttgg aaaagctgga gttttaaaag 60
gcattcatcc atttatgaac tttcttccag cccaggatcc ctgcagagaa ccagaggtta 120
caaatctgcc ctcctttctc ccctaaaagg tggctgaggg gaggagaggt gcatgtagct 180
ccagctatag caaatcagtg ccctgactca ctggggagac ccaggggttt gggatgttgc 240
tgacacctca tgggccacct catcagccca tctttgtagc ttcaggttca gctctgggtg 300
ctgcaggcag ggacccctct gctccctgcc tgaatgcagg gccagtctcc aaggaactcn 360
gtctgcagag tagaaagagc tgtgggctgg gaatcagggg cctgagggag cccctgccac 420
tgcctgccca gaaccagtgc tcctcattct cctgctgaca gcatgcatgt gccttttggc 480
taacacacac tcttgtctaa tttccagcca ctttaacccn gggat 525

<210> 157
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3738958T6

<220>
<221> unsure
<222> 249, 264, 268, 270, 281, 287
<223> a, t, c, g, or other

<400> 157
aagtttcttt gaaaaactcc aatatactat tattgcaatc actgtaacag gtagatggag 60
cattcccatt aacttggcta cttgacagta actcaataca ttatttttctt aaccagaata 120
caaaataaaa cccacagtca cacagaataa atgccctcaa agaaagcaac ttaaacttgt 180
actgaacact gaaaaggtaa atctgtataa aaggttataa ctgcatttac agtgcaaact 240
cgtgtttcnt tctactctct tatnaacngn aaatgtcttc ngaaacnttg cctccccgca 300
ttt 303

<210> 158
<211> 338
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3809571F6

<220>
<221> unsure
<222> 296
<223> a, t, c, g, or other

<400> 158
cccgtctgga agcctttata ctgaaacaca cgtgaccggc tgtctggaaa gtgagctggg 60
cgccgtcact gatgatgtct tttctgtggg acacagtcag gcacacccct tgcccttctg 120
agcctgggac gagacagagc tgacaggcgg agcccaaagg tgtgccgagc accagtgctg 180
ccaggggtga gagtcacatg cagctgtggc tgccgtggac gcctgctttt ttgccctctg 240
cagtttgcct aacccctgca gtttgcaggc agccctgggc ctctggacag agcagncctg 300
gttccctgtc aaggtgattg atccggaaga atctggca 338

<210> 159
<211> 366
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3817414T6

<220>
<221> unsure
<222> 265, 276, 331, 343, 355
<223> a, t, c, g, or other

<400> 159
tggtaggaga aatgaatgag gtacttttag gtagttaaat agaaaaacaa atctagaaaa 60
tacctggtaa cttgtgttgg aacacatttt ccatgatacg tttaatttct agcctctgtt 120
ccaagttctc attgtgtaag ccaaattcct gtaccacttt gtcaatggca atgccaactg 180
catttatctg ggagggtgtt ggtgggggta acgtagtggg caactcttcc tcttgcttct 240
ccttaatgtt tttcttgtgc ctctnttcct tgatangctt atgggcaaat gcaatgggat 300
tcaattaaaa catcacagag tctgcaggtg nactttgctg tanggtagtt tcgtngtcgc 360
cttttt 366

<210> 160
<211> 483
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3875548T6

<220>
<221> unsure
<222> 2, 12
<223> a, t, c, g, or other

<400> 160
cnttttttaca tnatcccttt tttccatatt ttttaaacat tagatacata atttgttaga 60
agttaaaagg gaaaaacatt tttttctgaa tcatatcaca ttatatttag cttaaagatt 120
attaactttt tgaatatcaa aaattgaagc tgctgggaat cacatttatt tgtaggtccc 180
aaaatagccc tgaggtctga ataggaaaat atcttttata aactataaca aaactctcac 240
ctcaaaataa aacactatga aatttacaca gttatatctg tactcagtat ctttacaata 300

tccagaaacc tactggatta ttagaaatga caatgcaaat aggtttacat tcagaaaaaa 360
agagagctta tactaagagg acctaacttg aaacctggca ccctgtgcag gaatctgttc 420
aatccttaga acggtcataa agtcatcttt gttaaaaaca caggtccttg gacaccccca 480
aat 483

<210> 161
<211> 376
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3992126R6

<220>
<221> unsure
<222> 96-97, 99, 104, 106, 115-116, 121, 126, 144, 159, 164, 184, 188, 197, 204, 219, 223, 234, 244, 251, 284, 286, 334, 362, 365
<223> a, t, c, g, or other

<400> 161
aaaaataccc tgatttgaaa ccaacagcag atgttgcaaa ctttcatacc actgctggcc 60
atggaagcct cttaacaaca cactgtcatt taaggnngng gttntncttt atacnnagag 120
naagangtgg tcttaagggg atgnttccag gggggtgant tcangcctct cctgtatttt 180
ccancaantg gggtatntgt ggtngtttgt tttttatang ggntaataat cccnggattc 240
taancatatg ntcagctatt ttaaagaggg gattaaatat tatnanagaa atagtaaaga 300
taagttatcc tcacttaggc aaaagcacca ggtnctttcc atatcaagtt tagcctaccc 360
anggntgttt tttgtt 376

<210> 162
<211> 351
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 342907T6

<220>
<221> unsure
<222> 344
<223> a, t, c, g, or other

<400> 162
tgacttggga tttgacaaat tcaaacttgg ttttaacaca ccatgtgcat ttcctgagcc 60
ccaggcgtac cagcagacac agggctgaaa gacccagggc ctacccgcag ggcttagagg 120
ctgaaccaaa ccgtttccca tttggctcaa gaccatggat gcaaaaatga ccatttttaa 180
aattttaaat tcaaatttat tttacttggg gataatcatc actgacactc actgagccat 240
tgctaggtca ttgtctatgg gcaggtccat gcataatgtt atttaatcct cactctggga 300
aatgttatcc tcacttacag aggaggtcac tgaaagctca gagnagtaaa g 351

<210> 163
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 462533R6

<400> 163
caaaattaca tttaaaacag tggattgttc tacaaatata tatgtgtata tatacatatg 60
cttctgaaat aaggatatat tatatgagtt tttatttgat ttgtggtctt tagtcatagg 120
taatcaaaaa taaagagatt tgaatgcaaa actttataca ttaatgtaca tttctaatga 180
tggtacaaat tgccacttta taataaaaaa gaaacaggtg ggaataataa tcaaagcacg 240
tgttccttca gtactttggt gatttttaat ccccccttgtg atgcacagga aattattttt 300
tagttacaaa aagttatctt agaaatctat acttcccaat acagatttca tgttaagtca 360
tatcaaattg agaatttgtg gtgaaagaat aggaaaaggg atgctagatg ctgatctttc 420
tttttcaggg atttttcccg ggaggcccaa gttaaaaatt ccatacttaa atcc 474

<210> 164
<211> 335
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1554666T6

<220>
<221> unsure
<222> 296
<223> a, t, c, g, or other

<400> 164
cagggctctg ttttaagccc tttttatctc tcacagtata gactctctca tggggtaaat 60
attgacatga cttcatttcc atctatctgc tcatcactca caaatctctc tctagtctag 120
acttctctct gagctccaga cacgcaactg tctcttcgag gccccatggc tatacctcaa 180
acacctgtcc taaacaaaac tccccatctt ctcccacaac tgctcttttt cttgaagtcc 240
acgcgtccaa ggcggcccat ccagtcccgg ggcagaaact ggcagacccc cttatnttca 300
catctgtgat aaccgacatg ttcactgttc tgctt 335

<210> 165
<211> 518
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1872410F6

<220>
<221> unsure
<222> 47, 235
<223> a, t, c, g, or other

<400> 165
atctgaaagc atgcgtgtgt cacagaccat tcagaggggc tataganagc aaactccagc 60
tgaaagcatg cgtgtgtcac agaccattca gaagggctat acagagcaaa ctctagctaa 120
aagcatgcat gtgtcccaga ccgaaaacca gagagagcaa actccagctg aaagcatgcg 180
tgtgtcacag accattcaga agggctatag agagagtact ctagctgaaa gcgtngcatg 240
tgtcacagac cattcagagg ggctatagag tactctagct gaaagcatgc gtgtgtcaca 300

gaccgttcag aggggctaca gagagcaaac tccagctgaa agcatgcgtg tatcacagac 360
cgaaaaccag agagagcaaa ctctagctga aagcgtggcg tgtgtcacag accattcaga 420
atggctagtc catttttcct ctgggggttt ctctccccca ttatattgtt tgggaagcag 480
tttgtttact ttaaaatgac ctggattcca ccagtata 518

<210> 166
<211> 338
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1991934F6

<220>
<221> unsure
<222> 71, 88, 109, 188, 268
<223> a, t, c, g, or other

<400> 166
aggtgaggca cctgagaagt tgtggcagcc tcttagggac aaagctgaat ttccctgaga 60
ctagaaacct nttcttccga aaactctnga tacttttttgt actgggccna tctcttgtca 120
cttaggcaaa ttccttttca gttaatggga ccaaagagag atgtttttgc ctccccctaa 180
gctggacnta gttggcttaa agtggaagaa tcccgaggag gcggggacct ggtaaggccc 240
ccatcattca gctgccctct cacacctnaa gagccacttc tctgctccaa ctgtggctgg 300
ctttgtgttt tgttttaacc aggaaggtgt tccccgtg 338

<210> 167
<211> 533
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2264271T6

<220>
<221> unsure
<222> 484
<223> a, t, c, g, or other

<400> 167
gacctttcag aacctctatt gccctctgtg ttaaatggca gcaataaaac ctcccaggat 60
tttcagggaa gggggtggat caaacaagtt acaacacatg tgaaagtgtg ttggaaagca 120
ccaagtattc taacagaaaa ggccaagaaa cagcatgcat gctgccactt ccctctcccg 180
tgcccaaggc agacatggct atctatctcg gcactgtctc accaagctat attgatcatt 240
cagaatccct ctcaacacat tccaggatag ttagggtgac atagcctcca tggggtgaag 300
agaagcagca atgcaaagca gggaatgccc agggaatggg ccaggtggcc tgtgccgtct 360
atgggctggg cctcatgctc agctgggctg tggctgggct tcaagaggcc tttgttccca 420
gcatcctggt tagcaacccc agttcctctt tcgtgcattg tggttccctg agaaaaacgt 480
taanccagcc cccagcacag tcaggccagc cctggggaag ggctcattca tga 533

<210> 168
<211> 511
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2374921T6

<400> 168
atcaaagctt gctgcagcct tgaactcctg ggctcaagca atcctcttac ctcagcaact 60
aggactacag gcacatgcca ccacgcttgg ccttctaatt tatttctgtg tcaacaaaat 120
aaaactcagg cctaggaata gcttggttca gaaatcacag agggacttag tattccatta 180
atacaaatgg aaacattaag ttcatcatca gatgataaaa ggaaaaaaaa aaacctgata 240
ctcatctcaa aagacgcaga aaagacattt gcataaatcc agtacctatt attatttcaa 300
atttaaaaac ttcttctttt ttaagagata gggtatcact atgttgccca ggctgatctt 360
gaactcttgg cctcagatga tcctcctgcc tcagcctccc acagtgctgg gactacgggc 420
atgagccacc acacccatca taaattaaaa cttctgaaca atctagtaac aaatggaaat 480
gcttttccat gatccagcac atctagcagg g 511

<210> 169
<211> 61
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2530696T6

<220>
<221> unsure
<222> 20, 41, 47-48, 50, 55
<223> a, t, c, g, or other

<400> 169
aatatattaa tcagaaaagn cacatactat aaatccagga naatacnngn atatnaatgt 60
c 61

<210> 170
<211> 185
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3092415T6

<220>
<221> unsure
<222> 22, 73, 135, 173
<223> a, t, c, g, or other

<400> 170
agaaaaaacc caacaatatt anacaagaag ctactgcact ggactacaga gctaaggtat 60
ggtgagatcc tantgacttc attattagac catcagtctt ccatttctct ctatcctcac 120
agcctgactt ccagngcaag tcataaatca atgttgtctt agactgctgc agnctcctca 180
cagtc 185

<210> 171
<211> 346
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3092627T6

<220>
<221> unsure
<222> 56, 58, 72, 79, 145, 177-178, 193, 212, 226, 229, 266, 271, 295, 309, 320, 332
<223> a, t, c, g, or other

<400> 171
atgtgttttt aatgtgttcc cttctattac ccctccctct ctacctcccg gggaananaa 60
aaagtagaga angaaagtng acaattccct tgttccctca aggagtaaca gctcaccctg 120
caggcataca gcagggaact ctcanaccaa gggaggacgt aggaagggag tgggttnngg 180
gggatgccac cancaccagg agagctgtgg gnggctaggg caggangtng aataatttca 240
tttcacaggc tttccagagt gttaanggta naaagagccc gggagatttg aaganggttt 300
gcagagatng agaaactgan gcaaaatggg tngttacttg ctgaag 346

<210> 172
<211> 500
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3602715F6

<220>
<221> unsure
<222> 47, 250, 305, 319-321, 323, 325, 473
<223> a, t, c, g, or other

<400> 172
ttatttcctt aatccacaag cagtggttac acttgctttg cattctngtc tggttcctaa 60
ctctagagcc cttctccctg gcttagccag taagctgagc ccctggctgc gttcagccgg 120
cccgcctgag agacactagg ggaaatagct tttgtgggca agcagggtgg ccggtggtgc 180
tcagcagtct ttccagtggc tgtgtccctc ctccaaatgt ggacaggcca tgacagagtc 240
ttagcccaan tcccacagat ccccaaaagt tctgttgatt gcttcagggg atcagtgaaa 300
attanggaat tttgtgtgnn ncnanataca ttttttctgg ggagatgagc ttctcattga 360
gatctgtgac tcagaatcga ctaagccacc ataagtctgg atttctcccc agctcccaag 420
gccctttgg ggtccagaag acctgcatat ggggctgttt actcatgcaa atnaggtatc 480
tgaactgcag ctttcagtat 500

<210> 173
<211> 375
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1879094F6

<220>
<221> unsure

<222> 237
<223> a, t, c, g, or other

<400> 173
caattctatg actgaaagtg actaaaaagc tggctttatg ccattaacac tctgtacttt 60
gcagccaatc agaactgacg cagtctgggt gctagctgct tcaaaagcaa cccacaccac 120
acttttacca tttccataca tcaactgctg agaatatgaa aatgcacagt gacaggtttt 180
aggatcctgc ttcaggattt ccttttcctg gtttggtcac tagagttggc tatttanctg 240
tttctaaaca atagctattt tatcgaatag tttagagacc actattaaat attgtgactg 300
atgaaggatc tgtgaatttt ttatatatgt tctaagagtt accattttga tacctttaa 360
aaaccagcag ctttc 375

<210> 174
<211> 451
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3735627T6

<400> 174
tgaggcagca tgggagtctt ggcttggaaa tcaggtctgc gttcttggtc ccttcagtca 60
ctgacctaat atgtgaactt agacaattca cttgcctctc tggaccttta aatgaaagag 120
ttaaactgta atggataatg tccctgggct ctttcacata atccatactt gagaaatcaa 180
tgaatcaatt tgaagaaact ctaattctaa gacataggta tcctggcacc tgtttgaaac 240
agctgaaagg aggtaaaggt caggttcctg tttattatac atttagctat aggaaaagaa 300
gcacatatat ctatggagac acagaacctg gcagccccta tacttgacta ataaaagcaa 360
attcctggaa gaagcagaga aataggccac aagtgagact ggcagtgtca aaaaaggtct 420
ataagttaag tgatccaagt agtaaaaaac a 451

<210> 175
<211> 244
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1958331F6

<400> 175
aaaaagaggt cttgccttta atgcagtgcc taaattacca catctttatt agaatttcat 60
aataatgctt tgagggttga taaaaatttt tctcaaaaga gaacttctta aaataggagt 120
ttggatattc agatattcca gagaacttgg ttgtttagtg ttttaaattc taagaatttt 180
tcggccagaa aatgatcctg cagagcatcc cttcccccca cctcaccact atttctcaac 240
tcct 244

<210> 176
<211> 271
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3234716T6

<220>
<221> unsure
<222> 5, 19, 66, 80, 83, 94, 109, 124, 127, 131-132, 135, 143, 159, 171, 180, 183, 196, 207, 230, 235, 249, 254, 260
<223> a, t, c, g, or other

<400> 176
atctncttcc atcactggng cagagtccac tggtacttcc acggacgctg tcagcaactt 60
tctgancgcc ttcaaagaan ccnaggcagt catncgttct ggctcttcnt gggcgggttc 120
ttcntcntca nnggnccctc canactccag ctcttatgng catgtgcccg ngaatcgtgn 180
tcngtcctct cttgcnacag gattcancac ggggtcatcc actcttgaan taatnagctg 240
ctcagtggna tctnggggtn gggttgggcc a 271

<210> 177
<211> 269
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2707709T6

<220>
<221> unsure
<222> 199, 214
<223> a, t, c, g, or other

<400> 177
taggtgattc agttttatta ggctgattag caataatttg caaaaactgt ttaaacaagt 60
catggaaaat aaaatgaaaa tttaattagc accagtgtca agggtaaaaa agcaattaat 120
attaaacact aatgtgaaga tactgttctt ttgtttttaa ttattcaata ccacactgag 180
cagattttga ttatttttnc tttctgagaa aatnaagggc ttttaaaatt atacttaata 240
tgagctgtac taactataaa tggtgaaac 269

<210> 178
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3111091F6

<220>
<221> unsure
<222> 22, 49, 128, 130-131, 133, 415
<223> a, t, c, g, or other

<400> 178
ccgccgtcct gagaggattg tngctgatgt gcagatctca gctggctgna tgcattcagg 60
ataccccatc atgtgccacc tggagtctgt gaaggagatc atcaatgaga tggacatgag 120
gagcaggngn ntncggggcc ccatccatga gctgggccac aaccaacagc ggcatggatg 180
ggagttcccc ccacacacta ctgaggccac ctgtaacctt tggtcagtct acgtgcatga 240
aacagtcctg gggatcccta gggctcaggc ccacgaggct ctgagccctc cagagcgaga 300
gaggagaatc aaggcccacc tgggaaaggg agccccctg tgtgactgga atgtatggac 360
agccctggaa acatatctac aggtactgag ccagaaattc tgggagaagg ggatnaccag 420

acccccttcag tcatgtagcg acctgggatc ccagtagctc t 461

<210> 179
<211> 274
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1352487T6

<220>
<221> unsure
<222> 224
<223> a, t, c, g, or other

<400> 179
gtagaagtat gtgttggcaa tcgttttcgt aagagtcaga aaaattaggc cggtttcaca 60
atatagagtg tcctttctgg tcaacagtat tgcttcagga cagaagagca tttcacagat 120
ctttcctgta acttctagaa aagtcatcca gccagattta ggctcaagct tctttacaaa 180
gccattttcc tatgagagaa taaatttaat attttaaaaa tcantggaga ttaagtatgc 240
tggaataaaa agcaaaaata ttttcattta aata 274

<210> 180
<211> 111
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1361439T6

<220>
<221> unsure
<222> 92, 107
<223> a, t, c, g, or other

<400> 180
ccccggacag ccctttttagc cataaggaag tagcggtcca cgggggcgcc gagggccacg 60
ttgatagcgc gcacggtgtt gatgttgcgc anaccaacag catgggncgc g 111

<210> 181
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1214059T6

<220>
<221> unsure
<222> 309, 318-319, 359, 408, 554
<223> a, t, c, g, or other

<400> 181

ataatattct ctggaaaatc taaaatcatt ctgttatcct aacattttta tactatcatc 60
attttagaaa ataaaaggcc tgcgttatat actagaaaaa tttcttcatt atatgcaaaa 120
tatttatctc ctctagtaaa ggagattaaa gaacaactgc aagaggaagg aaggtcctga 180
aagtgtttca tttggtatct acctacccca accccaagac ataaagacag ataaaggcac 240
taagatgcta gtatgtggct agtcctttca ataacccagt cagtccatac agataaccca 300
tgggatatnt ttttgcnna tctctttgag ccatcgatgg tcattatttg gttagttcnc 360
ccaaggtaag gccataccag ctgttaaaat gatgtagaga ttaatcanca gggctgccac 420
ttgcgaatcc cctccaagga tgctgtgcaa agggtctcat tggtcctgat gagtaatctt 480
gtgactgtac atattcctgg gtgcatgtcc acaaatactg aggtatagcc tgcatgccac 540
taaaaataac aaangg 556

<210> 182
<211> 263
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 182609R6

<400> 182
gtgagctgga ctaaaggtta tcttaggtcc ctttcaactc tgcactgtca acttgaattc 60
atacacacag ttgacacaga accctcgttt tctgaacaaa agcatataaa atcctgttgc 120
caatccttgt atgtcagttt cccatgggtc ttgaatgcaa atacaaatat cgtaaactaa 180
atatttgtgt tttctttcct agactctcca gaaagagcaa cagtaatgga gtacatgagc 240
actggaagtg acaattaagg aga 263

<210> 183
<211> 577
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1930329T6

<220>
<221> unsure
<222> 2, 545
<223> a, t, c, g, or other

<400> 183
cngggagacg gggtcctgcc cgccccaccc tgaggtggaa cccccagctg ctcctgggca 60
cagaatcatt tacaaaaata aatatgaaaa aagcagcaac tctttagtga tcatggaatt 120
aatctgacag caattaaatg tgtttaagca tctggcatat ctcctcaatt gcaccaaaag 180
aatttggaag cacttggttt ggtctcaaag gcaaaaggaa aggacaagga aggggccagg 240
cctcccgcca ggccccccgcc cccctcacat ttctgagtcc gcatacatcc cgttgattaa 300
gtagtccacc tgggtgtagt ccttcttctt gtagctctca taggcctgca gggcaaacaa 360
aaccaagact gtgatgaaaa gggtcacccc gagtaacagc accaccagaa ggagagtttt 420
gtctaccacg gcctgggtga ggggctcagt ggtgaccacc atgtactggc cttgggtgct 480
gggctggcac gagtccgtgg ctggcatctt agtgcccccc gagctcctgg ggtgttggcc 540
cagtngaatc agtacctggg tgtggcttca gtctcta 577

<210> 184
<211> 408
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 927117R6

<220>
<221> unsure
<222> 80, 116, 132, 136, 138, 142, 155, 159, 170, 176, 183, 185-186, 188, 190, 193, 209, 217, 221, 238, 292, 309-310, 318, 325-326, 348, 351
<223> a, t, c, g, or other

<400> 184
caatatgttt cttctggata tccttcactt caaaatagct tcataaagtc aggtccttct 60
gtacctccct tagtgaatcn acctctgcct acaacttttc aaccaggagc tcctcntggg 120
atcctccaa cnggangncc ancccagtg agggnccana tgcccctgan atcatnatat 180
atngnngnan ccnagccctt atataattna gctgtcnacc nagagggtat tacatcanat 240
accatctaac ggatctatgg tggtccacag tagttacgac gagattgaag gnggtggctt 300
attggcaann ccacagcnta ctaannagaa tcccaaaatg agccgcantg ntggatattc 360
atatccctcc ttaccacctg gttatcagaa cacaacacca cctggtgg 408

<210> 185
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2859369T6

<220>
<221> unsure
<222> 12, 208, 210, 214-215, 229, 237, 244, 248, 266, 273, 277, 281, 325, 340, 345, 373, 380, 383, 409, 425, 445
<223> a, t, c, g, or other

<400> 185
aactgctact gngaaacaac tggataccat aacattaaaa agaagtaaaa ataaaagaat 60
gagtgcacaa agaaacgaac agctaattaa taagatgaag atgctcagga ttggactgga 120
ggagagtatg accgcaacac tcagatacat aaccacacct gtaaccacac ctgtttacaa 180
ccacaggtcc ttgctctcaa aataaatntn ttgnncattt acaacagant gaatgcntta 240
tgantgcnag cttttctttt attgcnattc tantcantca ntcaaacaga ccaaaaggtc 300
atacttctaa aataagctac aagtnatctt tttctatgan aatgntgtga cttggtgcca 360
cagctaaact ttntctaatn gcngcatcat cagcccatgg cagcaaagna atgttaattt 420
ctggnatccc atgggctctt accgnagcaa caacttcata aagc 464

<210> 186
<211> 424
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1554387T6

<220>

<221> unsure
<222> 224, 251-252, 328, 332
<223> a, t, c, g, or other

<400> 186
aatgcaggta caaaaagtga caatctacag aatatttaac aataatcact gcctatgcca 60
tttacgatga aacatgagac aaaagggata aagtgcctta caaatccaac accacaagga 120
ggagttagga cttaggaata gactgagtag actatgtgcc ttgctcagcc acaattcttg 180
cctgtaattc acacaaagaa cactgtcaca ccaattactg tgcnaatgca catgtacaaa 240
cagatgacac nnaggagctc tgttggagac actgtttctt cagccttgac atgtggcaaa 300
gccaaggtac tccttgtcat tgacaccngg antatggcca agagggaaag gaacctctgg 360
gatctcccag ggaatctgaa tctcgaaacc tccaggaagc ctcttaggag ggctgtgtag 420
tgat 424

<210> 187
<211> 227
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 503030T6

<220>
<221> unsure
<222> 173
<223> a, t, c, g, or other

<400> 187
ttaaatgtga taaaagctta tttctttaga tataagcaat ttgaggtaac atggcttgta 60
cacaatgttg ggacccagtg gcccttctgt cttgttgctc tgccatacct gacatatgac 120
ctctgtccca tggttagaat ggcatcttca gctcctgcca tccagtgact ggngcatcaa 180
tatccagcaa attttttttcc tgtcgaagaa ttgatgcacc ctctgtt 227

<210> 188
<211> 454
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2058709T6

<220>
<221> unsure
<222> 418, 426
<223> a, t, c, g, or other

<400> 188
ttttgtaaaa tataaataca aaggcagaga atttacttac aaagttaaaa cacagatttc 60
aaacataaac acacgattca gaaaatttta gttttatgta catttccaag caacctcaac 120
atattatgtt agttttcaat attttacagg gtacagaaaa aaatagctca aagtcttctt 180
taaataagag cataaaatgt ttaaacatat aaacaatccg gtttgatgcg tgaaaactaa 240
tttcacagct tttaaattag gatataaaag tttcatacaa ttagttgttg tgtgtggata 300
tggtttgaat ttatattaca cactactgga ttacatccaa tagcatttac ctggcccgag 360
caggtactct gtaaacaaaa caaagttata tcaccaagtg ccttccccga attcgctncc 420

tcaaancaac cacacagttc tgaccagtct acag 454

<210> 189
<211> 365
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3988515T6

<220>
<221> unsure
<222> 276, 345
<223> a, t, c, g, or other

<400> 189
ttgttggttg attttaagta tgcatttatt tttgagtatg cgaaatatca gagttctgaa 60
agtcagagct ttacaacaag ctgtagtcag agaagtgtca ctttcccttc atcttggcac 120
tgcattccca ttccatctgt ctttccattc tttccacttc atgcccactt atcctccata 180
gatatccaat cttgttagtt tctagtttac ctttcttgga ctttttttca ttaatgagca 240
tatacatgta tattttctta ttcacatttt ccaacnaaaa gatcacatca cttagaaata 300
tgggagtctt tccctatcag ttcgtaggaa gatttctcaa ttctnttgac aggcatctac 360
tccat 365

<210> 190
<211> 583
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2888859T6

<220>
<221> unsure
<222> 253, 410, 492
<223> a, t, c, g, or other

<400> 190
agacttgtgt tctgtatcca ggagtgtgtt agatactaac atagtgtttc atttacatgt 60
gtgtgaaacc tgggtgaaga gccagggttt ctctccccca cccgcctcag agtgcttgtc 120
ctggaatcag agtgtaaaac cccctcttga agcagacacc aaaactgaac ttccacccgg 180
tcatgggccc tgctcttcct gctgtcagcc tagtccaaag agcaatgagg gaactgctta 240
ggaggggtct ganggtgatg agggcctggg ggccacacag gggtgggtgc tgtcaggtac 300
aagcccatcc ctgcctgcaa ataaccttgc acagggtcct tcctcattct ttcctcttcc 360
tttttgttta tgagatgaat ggctcttctg ctgtggcttt aggggcagtn gggaggcagg 420
gagctatttg ggaacagcct ggaaagctga ccctgcagaa tctcccagaa gccttggtgt 480
ggctatgggt anccaggctg tagaaatccc agatggtcct cttccagacc tctccccaac 540
tccagctcac agtttcagct tcttggcact gaaaacacta cta 583

<210> 191
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3169474T6

<220>
<221> unsure
<222> 277
<223> a, t, c, g, or other

<400> 191
atataaccag cgctgctagc ggggacggtg gggacacctc tggtctcaga tgagtgctgg 60
gaaggagggg acttgctccg agcgcaagtt tgtgcggaag cgcggctgga cctgggctct 120
gaatccgggg gtccggggtt ctgcacccag gcgtcagttc ctcatccgca gagtggcccc 180
cagaagcctc cgggtggtcg cgaggatgct ctaaatcccg ggggctaagg ccgagcccgg 240
cgtcccgcgc ccagcccgcg ggagctcttg gggatcngag cgcggccgac cttcgccagc 300
ctc 303

<210> 192
<211> 345
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1865880F6

<220>
<221> unsure
<222> 184, 260, 327
<223> a, t, c, g, or other

<400> 192
caggagttca acctcagcgt tactttgaaa gggctgccga cttcattgac caggctttgg 60
ctcaaaagaa tggccgggtg ctcgtccact gccgggaagg ttatagccgc tccccaacgc 120
tagttatcgc ctacctcatg atgcggcaga agatggacgt caagtctgcc ctgagcatcg 180
tgangcagaa ccgtgagatc ggccccaacg atggcttcct ggcccagctc tgccagctca 240
atgacagact agccaaggan gggaagttga aaccctaggg caccccccacc ggcttctgtt 300
cgaaaaggct cgtctgtgtc ctgccantct gagttatcca gaaac 345

<210> 193
<211> 442
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1440669F6

<220>
<221> unsure
<222> 382
<223> a, t, c, g, or other

<400> 193
caggcagttg tagccggggt ccgtgttctc acaccggtgc tctccattgt ggttgaagca 60
ggcatcaggc acttctttgc actatggagg aaataagagc gtgcatcatg tttagaagtc 120

actgccataa ggaagcgact gcacaggtta gctgctttcc tagatccaga aactcggagc 180
cccatcagtt cctcacctca tcaacatctg tgcactggat gccatttcca ctgtaaccag 240
ggggacaagc accacatttc cagctgccat cagggtagct agtacacttc acgccggcaa 300
agcagggatt ggacaggcat ccatctgaga caaggagaga gagacagtca cagtaaatgg 360
ttggtctaag ctgccatact gnccatgctg ggcattaaca cagtgtaaga tattataggg 420
tatagggaac cgataacttg tt 442

<210> 194
<211> 467
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2995031F6

<220>
<221> unsure
<222> 89, 189, 206, 252, 272, 397, 411, 429
<223> a, t, c, g, or other

<400> 194
ctattctatc caaggtatgt agcccaggaa ataaccaact tgatgcgtgt tatgacccat 60
tttaagcctc ccatgatcac agtttttana atacaattaa ggactggtcc ttttctaggt 120
gacacaagaa aggtaatagc tagaacagaa gaaagagggg tccccaaaaa tgtaacctta 180
aaatttgana cttgtgccac tattgntagt aagcagcatg gatgaggatg tggttctcta 240
aattggaaaa anaagttaca cagtaaaaaa anataagtat atctgtcaag aatcatattt 300
atgtgagatg tgtcaatact ggtcttgcgt tatttcggct acttgaaaat aagttaaaaa 360
agatagtgtt tggttccaaa aaggaaaagt ccagccnctc ctgcatgagt ngggagctgc 420
aacctttttng aattgataaa tcacaaaccc ctcagaccca aagtgga 467

<210> 195
<211> 535
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 667705T6

<400> 195
aattaatcct cagtaagtca gcaaaccagt gacaagaaat tgacaaacac tccttctaca 60
gcttcctgag acagcaggct ggcttgtggc cccctgggtg gtaacatctt aaggaatcct 120
atcatgtttg tttatatatg ctaaactgta aaaacaaaca cttcatgcga caatcattct 180
taggtcaaac acaagaacga actattttga aatcaattcc tcacactttt tccctgaata 240
tgcagtactg tactactaac atctaattct gtagaaaata atgcatttgt tagtgacttt 300
gttagagctt gaaaagaccc ttttagaaat tatttaaatg atcactcttt aaaaattttt 360
tttaatctca gaatctacta atgtgacaga caaacggtat gcttaacaga gtcataaata 420
ctgtgtataa ttgcttgacc atttctgggc atttaaatga cctcccagaa tattacacaa 480
gccctgagac tagtgagcat cttactactg accttgtaca ataccaaagc ttcat 535

<210> 196
<211> 370
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2808826T6

<400> 196
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taaaattaag catagaaatg gtggaacttt gggatttcct gtccagtcac ctgcgagtca 120
ggttttattc caattgattc aacgtggcag attaaatgtg aaaagtaaaa tggtgggctc 180
ctttaggcag caagtcttgc ttctctcctg gttacctctg cctacataga tatttggtta 240
agcaagatgt ttatacccca acacgtattc tagatagttc tggtcatgaa gtaagtcaca 300
attttccata tctgcacgat ttttaaaaaa tggaactacc catctgcaca aaatctttgg 360
gagtgcaggg 370

<210> 197
<211> 155
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2841974T6

<220>
<221> unsure
<222> 4, 26, 31, 66-67, 71, 89, 97, 103, 112, 114, 116, 124, 126, 130-131,
142, 144
<223> a, t, c, g, or other

<400> 197
aatnttcata tataaacaac tttaantgct ntcctccaat ttaaacatct aaagacttca 60
aaaatnnggc nttcaatatt tgaaaaaant acagatntac aanatgtgta tntncngtca 120
tgananctcn ncaccaacat tntncacttg gaaaa 155

<210> 198
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3175296T6

<220>
<221> unsure
<222> 27, 477
<223> a, t, c, g, or other

<400> 198
gacacacata cacacacata aagaagnaaa gtcaccagct gagagcgaag tttggggtgg 60
aagttttgag gtttgagaaa aaagaagtct gaaagtctaa cctctttttg aaatgtgcct 120
gtgatgaaga gtgacaatcg gcaaagcaaa tctaatagga tctctaaaga gccttttcct 180
gttgtttaca attgtggcta aagccctgca ctagaaaaca acaaatgcta agatcctccc 240
tgcatcccct acccccgacc ccctggggca cacacaaccc tcctccacca cgttctaaaa 300
agactggaag gacttggaaa aacattccta tgggatgaac tagaaggtgg caggactgct 360
atcatcagac ctcatttacc caccgcttcc agctgaaaac cagggatttc acaaaggaaa 420
aatcatgaga gtcatagttc tgtggttttc tcaaaaagga gaaggaaggg acgcttnttt 480

ccttcccacc cctgaggaac aggc 504

<210> 199
<211> 481
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 693452R6

<400> 199
gagaaaacaa atgaaccagt attcttacat tgatttcaag tttgaacaag gtgacataaa 60
aatagaaaag aggatgttct ttcttgaaaa taagcgacga cattgtaggt cctatgaccg 120
acgtgctctc cttccagctg tgcaacaaga gcaggagttc tatgagcaga aaatcaaaga 180
gatggcagag catgaagact ttttgcttgc cctacagatg aatgaagaac agtatcaaaa 240
ggatggccag ctgattgagt gtcgctgctg ctatggggaa tttccattcg aggagctgac 300
gcagtgcgca gatgctcact tgttctgcaa agagtgtctc atcagatatg cccaagaggc 360
agtctttgga tctggaaagt tggagctcag ctgcatggaa ggcagctgca cgtgttcgtt 420
cccaaccagt gagctggaga aggtgctccc ccagaaccat cctgtataag tactatgagc 480
g 481

<210> 200
<211> 375
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2203194T6

<220>
<221> unsure
<222> 58, 69, 185, 198, 288, 330, 337, 361, 367
<223> a, t, c, g, or other

<400> 200
ctggagatct cacataaaaa tataagctta tcttgtcaag ccagaaaatt tggcagtngg 60
gtctgcatnc tggcgtggca tcatcagctg ggcctgagta gtgtgggagc tccctgggca 120
caggacaagg gctcaggagt gtgcccagtc cccaccactc ccatcgtctc acagtgggct 180
gcctnattcg cttgtgtnac ccgctaacct tgcttaaatc tcagctctgt ctctaataag 240
ctgtgggacc agctctggtt ttccctctct ctgaatgaga tgtgaatnac agcgggtaga 300
ggggaacaga ttctagaggc tcggtgcttn ggttcanaac cccagctctg tcgtttacaa 360
ngctgtntga ccttа 375

<210> 201
<211> 596
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2231176T6

<220>
<221> unsure

<222> 577
<223> a, t, c, g, or other

<400> 201
ggaacgagaa ggggctaggg ataagaatga ataaaagtgg aaaaactaaa acagaatgat 60
ttaaaatgtg caaatacact ttgcaacctc caccattcaa tttagggatt gatatgtatg 120
tacagtgaga tccatgtagg ctaaagtgag tttcactttg tagttgatgc tacttgtacc 180
agttctatca ttagtaagtc accgtttaat tctgccaaaa tcagacaagg atctttctgg 240
ttagtgcaaa caaggttttc catcctgggc tgcagtctga cccgccagtg ctcagtaggc 300
atgcttgtga tgaattcgca cactttccag ttccccacct ccaatggcgg ccagggtctc 360
cagcctgttt aagcgctcca agcttcttcc aagaacttct tctagccgac tgcgtaacac 420
ctgagcccct tccagttcca cctgcagagt tcggtctctc tcagagctct ctggatgggc 480
atggaacttc accagactgc tatagagctg tctctctgct tgtaaggcct cattgagccg 540
actccgttca tctactagtc cttctagcat cagcagnaac tgttggcctt cgggtt 596

<210> 202
<211> 534
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2370457T6

<400> 202
tacatagtca ctatgccaca agatgttaag aatagttttc tctagatagt ggccttacag 60
gcaattttta tttggggtgt gtgtgtttta ctcaataaat atttattact tttgtattca 120
gaaaaaacat taagagaatc ataggaaagt ttaactaaaa aagaaaatct ttaaaatatc 180
attaaattat ttaacatatc cttcaagtga gattgtttcc ttttgctaag ctatattttg 240
taatctccac aacaaacatg aaatagtaaa gttgacataa aaaaacttgc acagtaatag 300
gaagcagtgt ttacattttg ccacccctta cattttgaag agggaactca tattcttaac 360
caagactgtt tcttatcatt attcaaaggt acctactttt cctaaatatt gcaattaaat 420
tatttgtact taagaaagca gtgtattgta aaggaaccag ccagacctgg ggtaaattcc 480
taattttgcc attaactttg acataaccac ctaacccaat ccaaaaacga aagt 534

<210> 203
<211> 496
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2379695T6

<400> 203
ggagacactg ctacaaagca tgaccccaaa ggtgcagaaa tgcctgcatt aggctggaag 60
attccctgag gtggctcagg caggtaagaa acccacacag tcctgggtcc tccccaagcc 120
tcggacgtgc agctgctgct tcactggaat tcttctctcc tcctggaaac ttgctccagt 180
tgtgtcactg gaggaggaaa aggtgtgggg gaggggggaag agggggctgg agctggcctc 240
ccccgaggcc tggctccaga actcgggctg tgtggggcgg ctgaggactg tgctctgtct 300
agagcttttg caggcaagga gtcgggatgc agcaaggact gagggctatc tgccgtgact 360
cttcaaagag gggcctgcca cacccaccaa gtcccatcct ggagtctaca agccaaggag 420
ctgcgacctc accgagggcg cctgttatta aatagcccat tggctgcgcg cggtggctca 480
tgctgcaatc cagcac 496

<210> 204

<211> 453
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2503204T6

<220>
<221> unsure
<222> 394, 419, 441
<223> a, t, c, g, or other

<400> 204
attgatgttg gagtatgctg aaatgcagta tataattcca caggaacctc atcaccactc 60
tcagttgcac tggtatcacc atctgacata ttttcccttt tccggcgttg tagtagcact 120
gccctctctt tatccaaatt cctaggctga caacgttcac atagatatgt atcaggaata 180
tgctgcctat caatccccat gcagtcaata tgttgccaaa cgctgcattt gtcacaacag 240
atcatgtatc catcatcatg tgtaaaacca catatgcacc tggttacatc agtaccataa 300
cttccatcct cagatgtgct gattgtagta gcactggaag tttcatcaaa attaggagtg 360
gtaaatatgc ctacttcatt tttgctaata aggnctgatg gaggagggga agcccggang 420
tgtcggagga gggacgagca ncattaatta tgg 453

<210> 205
<211> 240
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1849962H1

<400> 205
cggttctttc cctgggttct tgagagagag aaagtcagtg tcttttgata caagttagag 60
cagagaggag ctgcatgaag acttgaaaaa gcaacactga taggcataag gaggctgaaa 120
ggagacttga gtaaattaaa tttattgcat ctccatatcc tgcagatcta tccaataaag 180
gagagaaaca accgcacacg cctggctctc atcatatgca atacagagtt tgaccatctg 240

<210> 206
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2078863F6

<220>
<221> unsure
<222> 327, 340, 381, 384
<223> a, t, c, g, or other

<400> 206
ggggagaagc tgctgctgcc gccgttgccg ggagccgcgg agacaagtca ttacgttttc 60
atttctcaca actgggctga gcacaactga accatggggg aacacagtcc agacaacaac 120
atcatctact ttgaggcaga ggaagatgag ctgacccccg atgataaaat gctcaggttt 180

gtggataaaa acggactggt gccttcctca tctggaactg tttatgatag gaccactgtt 240
cttattgagc aggaccctgg cactttggag gatgaagatg acgacggaca gtgcgggaga 300
acacttgcct tttctagtag gggggtnaag aaggctttcn acctggatag atcatgaagc 360
aatgtcccca gggttatgtg nagnacattt atctca 396

<210> 207
<211> 277
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3218325H1

<220>
<221> unsure
<222> 18, 97, 107, 130
<223> a, t, c, g, or other

<400> 207
ccttgtgcaa taccagangg ctaaaaaaca ttagcaagca tctaacctcc tgaaactggc 60
catttcttga cctgttcctc ctgttcaagg cttcccnttc tggattngac caacaagttg 120
aaggatgacn ggggttttgg tgatgcccat gtgtaaagat cctctctggg gtttattaca 180
caggcttgta cagcgagatc ttttcatcat cctgctgacg attgacaggt acctggccat 240
cgtccacgcc gtgtttgcct tgcgggcacg gaccgtc 277

<210> 208
<211> 443
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2927175T6

<220>
<221> unsure
<222> 23, 29, 32, 62, 75, 97, 107, 110, 166, 210, 227, 230-231, 237-238, 243,
245-248, 251-253, 257, 260-262, 276-277, 283, 311, 317, 359, 434
<223> a, t, c, g, or other

<400> 208
aaaacaacat ttctatgata cantttggna anacaaactt taagaaaatc ttcaagattt 60
anaaaggttt aatanttagt acaatgcaaa aactganttt aaatacncan atgcacttga 120
caacatacaa ggtcacaatt atttcagttg gtaggatagc tctggntaaa ttcaatggtc 180
atttttgct acaaaatata atttaaaatn aagatcacag agattangan ntaactnntg 240
cancnnnnac nnngctntan nntatttttgc agaganntct gancacttta ggaaaccaga 300
atgaggaaag nggacangag agatcatgtg actgcttcac cctgatcaac ctggggcana 360
agcaccccgc gtccctccca ccgcctgcca ctggtcagcc ctatgatcca catcaaccat 420
gtcctttgtc ctanaaactc cca 443

<210> 209
<211> 532
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1997874T6

<220>
<221> unsure
<222> 335, 354, 407
<223> a, t, c, g, or other

<400> 209
gtttcataga aacaacttac atttgccaat ataaggcaaa tggtctatgt acagatacat 60
caggactgcc taactgacag tgagtgttgc tagccaggct ccaagctaat ggagctaata 120
cggtggagct ctctgctgaa tggactttcc cttcaggata cgtcggatct gttctcccac 180
agggccatcg ggaaccaaat gcactggctg ttcgttctcc aagttccgag tacttgggtc 240
tgctcccttc ctcatcaaca ggcggacagc atctaattgt gtcaaccgat actgcaggct 300
ggcagcaaca tggagggcag tgttgccatt gtaanccttt gcattcacaa aagncaggca 360
actgggcagc tccaaaaaga ggcgaatgag ttccagattt gcttctncag ctgccaaatg 420
cagggtgtgc ggccactttt gcgatccttc gcttccaccg ctgtcccatt tgaattaggc 480
acttaatggt atcaaccaga ctcttaattc ttcagtaaaa gctcctgaac tt 532

<210> 210
<211> 538
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2660871T6

<400> 210
gcactctaat tcaaagtctc ggcattaaca tatattttgt tgatctggtt gatgatttta 60
aaattatttt tcctttgtat tctttaccta cggctaaatt tctaatcttc aaaatgccta 120
cattcatttc atttacctta cattttatct tactcatttt taaagccttc aacatttttt 180
gagttttgaa ataattctca atttcttagt ctcttaattc ttaaatttaa aaaggttgtt 240
tcttaccttt taaaattttt aaaaataatt atgtcaagta atttttgaat atagtaacct 300
gattctacat ttctcatggg ataaattcta aggtaaaaaa aattgcaaat aaatcttaaa 360
ctttatttag taggtttatt attagcagca gatgtctagc cagggtagat tacttttatc 420
agaccaacct ctcaccaaca actactagaa gagctagaga gggagaaaag tctatttgaa 480
gacatcaagg atttgatgag ctaagattgc agagagaagg gaagtatggt gaaacagt 538

<210> 211
<211> 54
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2907049T6

<220>
<221> unsure
<222> 20, 34-36, 53
<223> a, t, c, g, or other

<400> 211
gggagctcaa tcttcagggn aacagctcaa agtnnnaagt attcatgtaa gtng 54

<210> 212
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3149004R6

<220>
<221> unsure
<222> 499
<223> a, t, c, g, or other

<400> 212
aaagtcggca agcaaattta ttaacctgct gggctgctct acagaaatct gaggaggcag 60
acaccgggct tacaggctaa ggggtataag taggtctgca ggggttttgt gtgtgtgtgc 120
gggggtgtcg gggggggcaag gccatttgtg gagacttttc ctcccagtat ggccacatcc 180
tgcagtttgt cagtttttgc ccccgcctgg ctcagggtac caggatgtgg tttagcttag 240
gggtggttat agtggcacct aagttctggg aacttgcggt gggggcgacc ttttggacga 300
aaaataagct gcagggcagc taggggaggg ggcttgttat attcctctgg gggcagggtg 360
tccctaactg ggctcagtcg gaaggaactt gaccaaagtc tgggctcagt tgggcatcac 420
tgaggctaat ggtcgtgtgc tggatgccat cagagggaag taccaatggt aaagtggaaa 480
caatgtgcag ctttcaacng ggtggaggct gctattctgt g 521

<210> 213
<211> 246
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3269702H1

<400> 213
ggagtgggag ctcaagcagg attcttcccg agtccctggg taagacaacc ctgcttcttt 60
tcttggcttt agagggtctc cttgcttaat gggaagcgtg cagcacctag tgagtggatt 120
tgaagagcca ctttgtaagc aacttgggca tttatttcag ccccagttcc agtcttccct 180
gactcttttg gcatcaaggc atcctcagaa gcttcaactc tggaggcaat gggtcgaaag 240
gaagaa 246

<210> 214
<211> 264
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1929661T6

<220>
<221> unsure
<222> 189, 196, 201, 206, 213
<223> a, t, c, g, or other

<400> 214

cacgtgtata aggcacaggg gcaaatggct ttggggtcct ggaactggaa atggagacag 60
gtgtgtctca ggtgtccctg cctccaccac cccctaagtg cacttgagac aggaccagtg 120
gtggtggttc cagcccaggg tcctgaaggg tcccactggc tctagaggag agccatgggg 180
acagctccnc aggctngaac ntctantctc canctaccca ggagggaccc tctcctccta 240
gggggcgagg ccagcttcca aagt 264

<210> 215
<211> 300
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2709044T6

<220>
<221> unsure
<222> 16, 30, 58, 96, 105, 203, 211, 217-218, 249, 256, 296
<223> a, t, c, g, or other

<400> 215
caggtttgtt ttcttngggg ttctcttctn agtagattaa atgttcacag agactagngc 60
tcaggggact gtccattcaa aagctaatgc attttngcta acaanaagcc agtacaagta 120
gcaaaaatta tatttgaaga gatactcctt tgaatgacat gggttgcaag ttctctgtca 180
aataatgccc tactatcctg gtnatatgag nacacgnntt aagttgttta aaaggtcaaa 240
aaacatggna aaaccntaag atgtctaaga tactcaactt ttactctcaa caaggncact 300

<210> 216
<211> 534
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3254777T6

<220>
<221> unsure
<222> 499
<223> a, t, c, g, or other

<400> 216
aaactacaca atgtaattca cgtaaccaca aaccagcaac tgcaaattaa gatttttgta 60
ggtcatgatt tctaaaaaat ccagccacgc aataacagcc tttctaaagc tgactttgtt 120
ttagtgaaac aaaactgtga tgacatccct aagcttcctc cagaagagct tcgacgtgga 180
gaaacggggt ggacgctcca cctaaccgca ccattgggaa aagaggaggc acctggagca 240
gaagcttctc tcccaagtgc acaacagagc atcagcgaag gcagtgagaa gagtagcaag 300
aaaaaggttt aaaatcatcg atgaaaatgg aaattaagct tgtcttatta caattaagac 360
aaactgacca tgtgcatttt ccccacattc ctgtggggaa tcccagctcg tttgaacaca 420
cgccacgaac tcctggtatc cgtaagtatc ccagctcgtt tgaacacacg ccacgaactc 480
cttcgtatcc ataagtatnc cagctcgttt gaaacacacg ccacgaactc ctcg 534

<210> 217
<211> 531
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1452827T6

<400> 217
ataacaaaat tcatacatac aagtaacaaa atacacaaaa tataggtgaa agcaatgtta 60
aagtgccaca caagttttaa taaattaatg acttttttatt tgaagcagaa gaggatgaac 120
cgccctcccc ccaaaaagtc aaaagacttc agttatcctg gaaagaaagt tctagctttg 180
gagggaagac ccccccaagc ccttcatctc tgaagggcag gatcatagaa gacagtctag 240
aaggcccata gcatagccct gacagtcaca gctgacttat cacgaagggc cattcaatca 300
acctcctcaa tgatggggcc ggtgctgggg tccccctggt gggcttgagc gctacaactg 360
ctgcccccag ggacaccagg ccccccatag agcctggaga agatggggcg acagatttgc 420
tccagctcct cttctgatgt catactcctc ttctctgcca gctggttgtg tccagccagg 480
caaaggactt cctgacactt gtcttgcact ttgcgctgtc ctcttcggga a 531

<210> 218
<211> 441
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3325383T6

<220>
<221> unsure
<222> 360
<223> a, t, c, g, or other

<400> 218
aacttacatt ttgttgacac taaatggcag gtttcataca aagactaatc ttttttatta 60
gggtaggaat aattattggt gactttctct gccaattttc caagtgttgg taatacatgt 120
tgttacttttt taaatgtgtt tttgttactt ttaaaatgaa atgaaaaaga catataaatt 180
atagcataca tgtctacccc tacatttaaa acaatatatt cctatgataa ggcagaaaaa 240
ttaacctacc cttccctaac acaaacttcc ctttaatgcc tgtggccatc tgtagatcct 300
gtcctctgtt agcaaactcc actcatttgc tttttgaagt tgagttcaag atcctcccan 360
ctcctcacct gccccgtcac ccacatctct gcattactgt aggctcactg catgtgccct 420
tcatctgacc ttgaatctag g 441

<210> 219
<211> 540
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3220151T6

<220>
<221> unsure
<222> 505
<223> a, t, c, g, or other

<400> 219
tggagacaag tcacttagca cctgaagtct ggtactgctg agcaataaaa tagatacagt 60
aattcccacc tccacctccc attaagcaac atgatgaggt taaacagaat aaaactctga 120

tgtactctaa gccattttga gagaaatctc tttgtgtatc ccaataaaag gacactccaa 180
attattttta tcatgtaatg ccacgataaa aggagcaagc tgcaaaatct ttaagaggca 240
actccattgc aaaaacaaaa acaaaaactt gggatctttt gtccaggggt gtcactctag 300
catctgcctg agtgacagca gcttcatcac tcagtctagc tgccgtctgc cctgtggatg 360
agcaagagcc tcaaatgcta ttataactct aattgctttc ggttatggtt gaactcactt 420
gaagaaagag tgataaaaaa cttcagtttc tccattatct gtatattcca tcacttaatt 480
gcaaaaatta atgatttgcc aatgnctaat cattaggggt caaccaatcc ggacgcgtgg 540

<210> 220
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3809026T6

<400> 220
ctagtttttg aaatagacat ctaatttaaa ctgcttaaat gtaaatctca tctcagcatt 60
ttaaggaata gcactaatat gagcaccaaa ttaaaacaaa caaacaagca aacaaaacac 120
aagcatttac cagaatggac ttttgttttg tgcttcttta aatttttaat atctgtgtaa 180
gaatttccac ataattcgca gataaatggt ctttctcctg aaaaacaaat tagaagttta 240
aatttcaata ttttaaaagc tgctagctaa gacaaaaata tcaatgttta tgaacacaag 300
gcaaaaatta ttatagtgtt taaatttggt ttcaaattgt cactttaatc acctggttat 360
aatatagtga aatgcaagat tctata 386

<210> 221
<211> 175
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 065498H1

<220>
<221> unsure
<222> 122, 139
<223> a, t, c, g, or other

<400> 221
gaaagtagca ggtcagatgg aaaattcttt tccacagccc tgctctccgc ctccctccat 60
cttaggagcg cctgcctcaa ttcctcgtca actgctttgc tccactccat cccacaggtg 120
tnagtggggg aagtttttna ttaggaatac agtctgcgtg acatggagaa tggat 175

<210> 222
<211> 360
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1417323T6

<220>
<221> unsure

<222> 79, 185
<223> a, t, c, g, or other

<400> 222
taaagaaatg ttacagtcca tgtaggaagt gctatgatag aagcagctgg agcaccttac 60
cgagctcagg agaccgggng gatgggggg cttgccagag ggcacagcat tgcaagcagg 120
gcaatgaccc agttctaaga cagactcgtc acatggcaag cagagtcggt cagactttgg 180
acaantttat tgacttcttt ggaacctcag ttttctcatt tgacaaaact agatggtcaa 240
gaagcgtcta ggattattgg gacacgtaaa ttacataatt ctgacacagc ccccccaact 300
ctgggttcct ggtatggggt aagtttttta gtaaatgtga agatgctgtg attagtactg 360

<210> 223
<211> 446
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2410888T6

<220>
<221> unsure
<222> 3
<223> a, t, c, g, or other

<400> 223
gcnagtcagc aaatactacc taaggacatc tcagatcatg tgacacgcct gaaatggaaa 60
gctcaagagc agatggggga caagaggagg acaaacgtcc gcacgcgggg gtcccactca 120
tcatggttac actcctggac atgaccctac ctgatgggaa acttcccagg gagggtgttt 180
aggcagtgac aggtggcagg caggggctac gtgggtcacc ccacagggca cagcacacag 240
tgaagagaaa ggagagagtg ggacctagga agaaactggg gaggaagcaa aacacaagtt 300
ccaggggccg gccatctaac cagatccacc acacaaatgg cagccagatg ccagaggggg 360
agaggcacat cacgcacaat tctcaggaaa cagaaactgc cttacacacc tcaaacactg 420
caatttgaca tcaaaaagta tcttgc 446

<210> 224
<211> 79
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1552980T6

<220>
<221> unsure
<222> 27, 55, 62, 69
<223> a, t, c, g, or other

<400> 224
ttacatcccg gcagggtaaa cagccantaa cttcacgaaa ccaaacatcc agtangtcag 60
antgccatng gaaaggtac 79

<210> 225
<211> 465
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2507526T6

<220>
<221> unsure
<222> 76-77, 235, 262, 286, 288, 291-293, 403, 407, 433, 439, 441, 453
<223> a, t, c, g, or other

<400> 225
aaaaagatgt cacatatgaa ctggggaact ttagcaccaa aatcaagtct ctcctagtcc 60
atctagcttc cccttnntcc ccacttaaaa aaaagaaaaa attaaatcac aaagtcccac 120
ttaagtcaaa atcttcgtcc gctttttcag ccttccttcc tgcagaccta cacaaaccca 180
ggcaagatta gtcaacaggg gttcagatcg ggaagaaaaa ggttttgaat gtcangacag 240
gtttccccca aaaccctggt cnggcaacaa ctcttccaag gggccncngt nnnccccgcg 300
ggggcgggta caggtggaga ggtgccaccg ggaagagggg aggaggaata agtgtggcgg 360
gagactgaaa tgagggaagg tgcagttgtg tcgccagagc tancacntta aagttcaact 420
tttttactag tcnaatagnt ncttcaactc acnatatctc ccaca 465

<210> 226
<211> 150
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3258109R6

<400> 226
gcaaaatagg gtagataatg gtagttattt catagggttg tgtgcagctt aagggagatc 60
atgaatggac atttctaacc caatgtgaca atcagtgacc aatatgtttt ggctttttca 120
aaccaagaat ctagttgagt ccacagccac 150

<210> 227
<211> 359
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1306411F6

<220>
<221> unsure
<222> 32, 88, 200, 208, 223, 233, 266, 280, 285, 314, 345
<223> a, t, c, g, or other

<400> 227
gggcgggttt gaggaagtta agagaaggta cnatgttggc ctcacccgat gtccactttc 60
catctttatt gacatacgaa ctttcccnac acggaattct tgtaaatgtc tccccctaag 120
aaagaagccc tgaaaatgct gcggaatcca acagatgaag atgttccttg gcctggattc 180
attcttgggc agaccccagn ttcagtangg tactggtgtg ctnaccaagt cancgttcag 240
agggtccttg cagccaaaaa cattgntcca tgccaaaggn tctantctta tggctggctt 300
cttaaagctc ctgncaatgt ttatccatag ttgtcccagg aatgntttcc aggatactg 359

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<210> 228
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 708018T6

<220>
<221> unsure
<222> 48, 286, 290, 294, 335, 357, 424, 433
<223> a, t, c, g, or other

<400> 228
atgtattgtt actagaacaa cttgtatagg gttttatggt ttgggganaa catttttaaa 60
aaatggactt atctctatta tacagagtta taatataaaa atgatttaaa ggctatattt 120
ttcagcatgt aggtagctac actgtaatcc tgttgaagaa actttcctat ttaagcttat 180
aggatgaaaa tatataatta aagtcttctg atcatagctt gagaccatca agggaatgtt 240
tagtttcctc cacaaagagc caccaggatt ttctcataat ctcctntggn ttcntcctgt 300
tgattcaaaa aaaggtatac ttaatgttag tcganaccat aattctctat ttttttntac 360
ttatagaaga attatttttа gacttagctg tagatgagat tacacattac cattcactta 420
attnaacaat atntacaaca gataactgat tttttatcat tgcataaaaa agcaatagcc 480
ttcaagactg agattaccaa cttt 504

<210> 229
<211> 619
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1713038T6

<220>
<221> unsure
<222> 219, 230, 294, 576, 589
<223> a, t, c, g, or other

<400> 229
ctttatagaa aaataaagaa aataaaaatc atcaataatt ttatcaccca gaaacaatca 60
cttttaatgt gctggtagag gttagtctat tttaacattt ctgaaatcat atagatttac 120
atgattgttc tcacgtaacc tgtaacataa gcatttccca agttgctatt atctgttaat 180
aacagtggtt tgattaattg gattggctgt gtggatgtng aacggaagan ccttgatgtc 240
aagaagtgct gaagcacaga aggtgcagtc ggtcatttgg gaccatattg tctntggctt 300
tcaggacagg gagcttcagg actcaggtag atgactctgg aagaaacctt ctcttggaac 360
tgcagcatct ccctgtcctc cccaagggga atttaggcca ggaaatacca gatcttccct 420
ctctgatttt cttctcaaat cccaatgcaa gacaatggag actaaatacg gttctggtca 480
tcaggctctt ccagagcatc cgggtgcatg agaagtgaat aggtgattgt gtctcagccc 540
caactttgtc agcctcatca gggattagtg ggattngctg ggttctcang gagggtctct 600
cccatttccc tgcactcag 619

<210> 230
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2226878T6

<400> 230
ggagtaagag gggtgggatg gaggacagca gcagggccga caggacccta cttctgctcc 60
cgcctccaga cgatgaccat gccgctggcg tcactggagg ccagtaggct ctcgtcgcag 120
ttgaagctga catcaagcac aggtgcactg tggccctgca gcttgttgac agcagccttg 180
gccgcccgct ccacatcaaa gaagtgcacg cacatgtcct cactgcccgt caccacgcag 240
gccccctggc ggaaggacat gaggggacag aagatgctgc gcacaggatg tgagctctgc 300
tcgatgggga agcttctctt cagctgcagg gtcccctcgt tgtctaccac cctgtagagc 360
agcaacttgt tgaggcaagc attgatgagc agtgagggat cccgggcctc gcggctgacc 420
caggaccggg ctgagatgct ggtcacaggg tcccctcatg c 461

<210> 231
<211> 86
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3483069T6

<220>
<221> unsure
<222> 28, 31, 37, 43, 74, 78-80, 84
<223> a, t, c, g, or other

<400> 231
caaatacaaa ttttctgtta agaacggnaa ngtgcanact agnagagtca atactggtaa 60
ccagaacgca ctantccnnn cacnta 86

<210> 232
<211> 574
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 405967T6

<400> 232
tgtcttttcc cacacatatt ccaaatcttt taggggagta aaagcagtga aaataacaaa 60
attatgttcc acatgcccaa gtcacaaaat gtattaaata tgataaagta gcggctgtac 120
aaaattggac aaattgacaa ataacaatgg gtcaggaaca ctgtatctgt ttgatacagg 180
agtgatattg aaaaagggtt ctgtttttac tttctcttat ttgtcatcaa aaaagaaaat 240
tgcatcttcc ataaacagat tccagaaaaa gaaatttatt gttacctctg cgaagttgtg 300
gatagcttct ggtggtaagg atggtattga acacgtttac gtctgtcccc tttctccttt 360
ctcctgcttc atacaaggcc tgtcaagaaa cacaaaagta aacacttcac tatctgctga 420
aatgatatct gcacaataat gttagacctt gtcaaagatt atataggcaa tcgctttgtg 480
cccaatacaa tcagagtagt caacaataag attgcaagtt ctttaaagat agggacctta 540
ttttgtttgt caaatatctt ccacagttct ctca 574

<210> 233
<211> 552
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2783681F6

<220>
<221> unsure
<222> 416, 468, 480, 526
<223> a, t, c, g, or other

<400> 233
catcaagctt ggctcatggg atctgctgct gcattaaatc gggaaagaaa atgtgaagat 60
ttcatttgga atcacagaaa atgcccaaat gaggtcaaga tggcgagtgg gtgcgagtga 120
gaatgagtgg caaaatgtaa tgaaaacttt acatgaatgc ttatttaggt tgttcaaagt 180
aaaaagggct acaggtcaca gatcgtcagt gcctgagaaa gaacattgac ttactctata 240
tcaattgagg ggaaagtgca gtaccgtcat cttcaagcct tgtaagcata aaagagaata 300
ggctgcccat ataagtcaaa ggaaaatgag cccaggcctt gctatgaagc agtgtgtgaa 360
tggacaatgt tgaatgaatg tctggctcag tgatggagag ccaggttcat ctttgnaatc 420
tagggctctt cactcatgaa gcagactcct agtcctggag tgactgtnta cgagagcgtn 480
gttgtggtgc tgtatgtgaa cgcatgcaag ctttgattca ccttcngggg ggctgataac 540
cctagtaaat ca 552

<210> 234
<211> 599
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 345673T6

<220>
<221> unsure
<222> 567
<223> a, t, c, g, or other

<400> 234
gtcggattaa cgttcaaagg actgagtccc aaacaaagag tcaagctacc ttttaagcat 60
ttcgtggggt gggggggagac ctttgtaggg ggagcatatt acagaagcaa gaaacaaaga 120
cagttattca actgagacat gcattacatc atttcttatt tttcaaggaa caacgtgttt 180
tatgatttga gatgatctgt ctagtgacct tgcagctgca cagctagaga aacagagtct 240
tcacaatgcg tgggaaaggg agagagaagg ctcactagcc acagaaaaac aggcagttaa 300
ttttaaagga ctccagctct ttctcttcct caggggggagt tgggttttct tacatacaac 360
tgagtttttg cttacacatt ctttaatttc ttttaattcc tgttccacaa ggtcatatta 420
acaatgataa gaataaataa ttgtgtggca gtttatgtag tgcattgtac atcagtggtt 480
tcattccatc tttataacaa cctcactact atccccattt tcacagatga gagaagactc 540
agaaattaag aggtttgaca cagaganggt acctggggca cagcaacagc cttctccaa 599

<210> 235
<211> 508
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 2723202T6

<220>
<221> unsure
<222> 497
<223> a, t, c, g, or other

<400> 235
tttgataatg aggatattat aaatcatact ttaagcaaaa atctatgcat gatatatgta 60
agcagtaaca ttttgaagaa aaaagccatg aaagcattta cctaaaattt agtaacatcg 120
aaaaacacta gtttgtgcat agtaatgttg aaagcttcat aatacactag aatactggta 180
agtcttcagg tattgtaaga aaaacctggt acaggaaaag actaaaatta gacacatcca 240
tatccttaga tgtgcacatc atctagaaat aaatcccaca atgtagcagt gcactaagta 300
tcctttgttt ggcacttaac aatacagaca aacgtgtatt tggtttaacg tgattttatt 360
attcttagat acattttagt tattttatat agataaaaat atacaatatt gcttttcaaa 420
cttttaattt tataactgta taactgattg tatcatattc atgattaaaa agcctatttt 480
ccactaaaca atttatncag taacatgt 508

<210> 236
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3091058T6

<400> 236
agaactcagc aagcaccccc acttcctcca aagagtagtc aagtcccaca gcacagcccg 60
gagcagtagc tgttaaaaga caagggctgg gctggatccg gccaacatta caaggacaac 120
caactggtct cattccttag tcttgtgctt ttaaagggca gacgatgtgc caactatttt 180
aaagctccaa cacactaatt ctgtaaacaa taatagctac agcctgcaca ctgcgcactg 240
gaatggattc ctcaacttgg cctcatcact tatgcagctg atgaaacaaa cactgacagc 300
ttttttgcat ttgtaaaggc cccacagcag ctgtggtgat cccaccatag agcaatgaat 360
taagcctgaa acccagctgg gtctgaacag aagccttttt tgcacaatac agcaagacta 420
tcattgttaa cctag 435

<210> 237
<211> 512
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2762254T6

<400> 237
agctggaaaa aagtagtccc aaaacctaaa ttcaaaataa aactatgcaa cataattttt 60
gagttgacaa ctaggcttga tttagagaaa gtaaacatat tttcacctct atcattattc 120
ttttgaattt cttatgagat cgagaatgaa aatgtataat ggtacaatat tcttcatgtt 180
ataaactctt tctctactgt acagaaatat atcttataac tatatgtcac tttacagtat 240
ttaaaaatag tttcacataa tctcctttga tatatgaaag cacaaaatat tagaaatgtt 300
ctagactaat caagcgatat aacatctatt tgccatgaaa tgcaagttag tattttatca 360
atagccaata tttagtatcc ttgcactcca cagtacaaca ataaagatta tatatttgta 420
aagattcagt aatattttta gctatttggg tcatgcttca ctgcattttt tataacagct 480
tctcaatgaa tttctgccaa gcatatcgta gt 512

<210> 238
<211> 203
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1501582T6

<220>
<221> unsure
<222> 183
<223> a, t, c, g, or other

<400> 238
tacctgcagc acaaagcata cgtcttttct atacaaagcc aacaagcttc tgctcctttc 60
tgaagtcgtc tttgccaagc agggtgttgg gggcgggggt gaggataggg gtgaggggac 120
attttacccg gttatgctct tacgtactaa ccttcacctt gacaaagctt gtcaacgaaa 180
acnaaaccag tcagagcctt ttc 203

<210> 239
<211> 503
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3282967T6

<220>
<221> unsure
<222> 275, 444, 446
<223> a, t, c, g, or other

<400> 239
ccttcatacg tggcatgcca caattccaaa gaaaaaaaaa gaggggggata aagatcacat 60
ggagtatttc tggaaggatt cacaaggaag ttctcatcac tggctacact tttcaatttt 120
gagccatgtc agcctattac atatcttaaa aaactaaagg ccaacttcta agtagggagc 180
catggagggg cctcagctga gaagaatgaa gaggacatca ccgatgacct ggagctgctc 240
caagacgctg gccatactgg gggctgtgaa ctgangggcc gtgggggggat gagctgtgag 300
tgaggctcat cctacccagg ccgggtgggg gcccagctcc acccagggat atagctggag 360
gggcaggatg ctggcactgc agccgaccag tatctcccat tcacagtgtg ctgctgggcc 420
atggcctgct tggccaggca cttnangatc tcggagcttt ccttctcgtg gttctcacca 480
aaaaacaagg ggagagagca caa 503

<210> 240
<211> 180
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1966576H1

<400> 240
gtctgaccct gcaccacttg gtggtggaga tcaaggggtt gcttggactg cagcacctgg 60

gccgagatca cagtgatggc atctgtttga atgtgctggt gaccgtggct ttcggagcc 120
cagggatcca ggatgaaccc ccaaaagttc ggggtgagaa cttctcttgg tggaaggtga 180

<210> 241
<211> 561
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1859155T6

<400> 241
atgactcata ttacaataaa aaatgccatt caagaacttc caaatactat agtcacgaga 60
ataaaaaaga aactaaattt cttctaaatc atctttgtgc cactaccata tctgataata 120
tattccttct gtactcttga aacctatctc agaagtatct ttgacaaatt ataaatgtag 180
aagaatttaa gaagttaatt aaaattattt taatataatt tctcctttat tttaataaca 240
aaataccagg gaaaaagttc catttattta cctcagtaat tggctgccct tgatgtgtca 300
aatccagctc ttgagggcgt gttactttat caatatccaa agagtccatg ctggaggctg 360
cggaagtgat gctggaatgg gaggaattac taatagagtg tacttcagca tcactcactg 420
tgcctgctga cgcggttctt ctgtgctgat tagttactaa gggtttagta tcttctagta 480
cagattgctg agcagcctca tccatactca aagaggcctg ttctaactgt gcagtgacgt 540
cgtccaagga gtagctggca t 561

<210> 242
<211> 510
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2652949F6

<220>
<221> unsure
<222> 47
<223> a, t, c, g, or other

<400> 242
atttggagta tctgtaattt gtaatcatgc tgacgcttct cctttanctt ttaaaatttg 60
cagtggctga gaggactact aactagtaga cagagtttta acatcatatt tggtgaatgc 120
ccatattgta gtaaggtaag caaattgtta atcacatctc ataaaatgtg cctagctttc 180
agtaatatgt tctagaagat agatctatat agtatatcag tttatctaaa acttttgaaa 240
ctcattctct gtatttctat ttttcaaatt ctctgatcaa aaacattaaa ctccttttct 300
agatttccta ggtgatctga aacttcagaa gtgttttcca aactgtacta tgacactatt 360
ctatgacact atttctagta caaagcaatt ttatttttta gagtgtccac aaactttgtt 420
aaaatatgtt ctcttttaa aggccaatta ccttaaaaat ggtctgggaa ggaaacactg 480
aaataagaat acaacattcg ggtgaagagc 510

<210> 243
<211> 642
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 2589371T6

<400> 243
tctaaaatgg cagagatttc aggaaagtct aatcacactt gaccatgagt gttgagttgc 60
ttttccttcc tctgaggcca agagttactt atatccaaga ccgtgaagaa ctctttttga 120
cctgttggat atgatcttgt gactgggtcg aggaaaatga actcccaggg ttgttggagt 180
agagctgttt ccaccaaaag acagaactgt atgcagctaa taagagctcc agcacagtga 240
agatgagcat caccactagg acacctgtta aactgacact ggtcaggaga caatctttga 300
tttcatatat tggataatag tactccgaat aaggcaatga ggatagataa tccatttctg 360
agccacaatg ttgagaggca gtcctcaggg ctaccatgct gtcagcaagg aggaagaggc 420
ctgctcctgc agtaacagaa ctcactgcat ttgaggtcaa gctgctcagg tcaaagggct 480
tagttgattg ttttccagag ataattgaga gggatccagt aatgccaaaa cacagagctc 540
ctaaaaatgg gtacccagac atcaaagtgg tggaaattgc tggattgaag tgggaggggt 600
agggagcaaa aaccaagatg ggcccccaga cttgaaatca ac 642

<210> 244
<211> 558
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1714938T6

<220>
<221> unsure
<222> 390, 435, 522, 546
<223> a, t, c, g, or other

<400> 244
taaagagttg tgctattcaa caaataaact tcctcttccg tttcttctct ctcctcatct 60
gtgagattca gttgaacatt attgaagcgg ggtcttggtt tgccgtctgg gccatatgcc 120
ggaggatatc ttttttttgtt ataatgccaa ggagggccca ttgtgagtta caaggcactg 180
cctcagtccc agctttcgga aaatatccac cacgatctcc attggggtgt ggtctgtcac 240
tgtaaaaggg ctcatgtcaa gaatgcttcg aagcttcaat ggccgaggac tttctgctgg 300
aagagatggg gtgtgctgtg caaaacacac ccgagaactg ccaacgatac cttcttgttt 360
tttcctggca ctttctattg caattgtcan gtctcttctg agggcaaatc ccactaatct 420
ctgagattct tttgncatta tgacaggaaa tccattgtag ctggtttcat taatcatgtt 480
ttctatatca tccactggtc atattgtcct gtgtcaggac anctaatgga ggatcattcc 540
ttcgangtct cataacgt 558

<210> 245
<211> 480
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2641714T6

<400> 245
aatgtcatca acaagtaaat gggtaaatga attgtggtat atccatacaa gggaatattc 60
aacatttaaa agaatgaatt catacgagca tcaagatgga gacatatgaa tctcaaaata 120
attatgcaaa gtgaaagaag ccagacaaaa aaaaaagaca tactatatga ttccattcac 180
ataaaactac aaaatgcaaa atgaaagccg attggaggtt ttctggggag gagtcatcag 240
gaggagcatt gtgacacttt gagggatgat ggatatgttc actctcttaa ttgtagtatg 300

catgttctcc acaaggtgtg aaaacttatc aaatagtaca ctttaaatat gttcagttta 360
ttttatgtta attatatctc aataaagctt ttaacaaaag caaacatctc ttgcctacat 420
aaggatgaca cagctcttaa aaaaaaaaaa agattcctgc tagattgtgt gcagcaaaat 480

<210> 246
<211> 436
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2842285T6

<220>
<221> unsure
<222> 22, 172, 401, 413, 423, 430
<223> a, t, c, g, or other

<400> 246
tataacattt ttggcttgtc anaccagtaa atcatgtttt tccactggac aaaggaagct 60
gaagaaacaa ctgttgaaca aactaaatgc tgtgacatga agcatctgac ttctaagtct 120
gagtatttag ttaaaatgat tggtgaacat ttaactgggc aaaaggaatg gnatccatca 180
tccaaacagg ctcacttccc ccagccccca aaatgaacag tagttttaat agcaaaagat 240
ataaaaagtt tttttctttt gattctttag agccaactgt gaaagaggtc agcaatacat 300
taacagcagc aatggacaag gaagagcaaa atagaggatt aaagtatctt gctggacgtt 360
tgttcatctt tttctgtatt agcctgaaaa ctgcaactgg nttatggaaa ttnccggtgc 420
atntgtctcn ttagat 436

<210> 247
<211> 319
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1376538T6

<400> 247
gaactgcaca ctacttcagt ggaaaaaagt tcaatattgt gcaattttct gcctcttaat 60
agttaaaaag tggcagcaat ccctgcattt gtgtttgaaa caaggatctg agaaacttta 120
tcaaaaaagg taatgaaggc aaaaattggc agacatccag catcttgttt ctttttaaaa 180
caatgtggat gataagtaat ttcatgatta aaaatgaatc ttttaaataa atacattgta 240
tctgacattt gcactgactg atttgataaa tctttaagta aacaacggct ttactacact 300
ccctgtagct caagccact 319

<210> 248
<211> 641
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 154741T6

<220>
<221> unsure

<222> 224, 227, 229, 384, 611
<223> a, t, c, g, or other

<400> 248
catatgttat ttcctgtggt agtgcagcct cggggcaagg gcgcgttccc tatcgcagga 60
tcacttgcta tggtaagccg cccaccctgc gcgctcctcc gcgcggggaa gaacctgcgc 120
ggcaggacgt ggtgttggag ttggggcgcc cggagcgtgg agtggggaga cctgatgcag 180
agagtctgga gtcggagctg ggggtgctgc aggtaggagc aggntcngng cggagaggga 240
ggcccgaaga agaccccaca caggttggcg cacggggctt ggggaggctt cagcccagaa 300
gtggagaggg ttgacagacg cctgcctgat tagaaaaagc cgggagcttg ggaaggagac 360
gggattgaag aagccacccg gcanggaggc cgaacggccc agagctctcc gggtaaaacc 420
cgcctgcggt gatctgggaa gtgtgtctcc acctagccct gcgagcagcg gccttcctcc 480
cgcccgttag aagggcgctg tgctggagta cgaacccggc ccagagaagc cactcgccct 540
tctttgtcac ttaaaaccct gtcccgaacg cggatctcac gtctagaact ctgtctttaa 600
agcggatgta nagcgcgttc taaccgttcc ctaaccattg t 641

<210> 249
<211> 199
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1502915T6

<220>
<221> unsure
<222> 161, 173, 185
<223> a, t, c, g, or other

<400> 249
tatcattttc aagcccttac ttgtctactt ccactgttgc ccataagtat cctgataaaa 60
ttcctggttg tcattattgt aaccatagtt accagaatag tcaccacctt gctgaagcgg 120
ctgctgagcg atgggttggg aaccccagtt ctgttggttg ntggtctgac gangcttgga 180
atcangctgg ttgtaccca 199

<210> 250
<211> 298
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1488759T6

<220>
<221> unsure
<222> 29, 76, 119, 126, 140, 146, 187, 194-195, 263, 282
<223> a, t, c, g, or other

<400> 250
ggggaacaca cagaaatgga tcggaacana atggagagag acggaggcgc tgtaactaca 60
gcaacctaca cgccangtat ctcggaggag caggctcctg cacacgcggg ctctgtgana 120
ccaganggtc tatttgttcn caatantgaa gggcatctag aattagctac agtaaggaat 180
cgaaagntgc ctgnngaatg ggcacagaac ggctgcgtcc gaaaatggcc tgtcacttgg 240
gagggtggag ctgctgggtc ttnctgttga ccactgtctt gnaaaaagtg cacagggg 298

<210> 251
<211> 597
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 393928T6

<220>
<221> unsure
<222> 539
<223> a, t, c, g, or other

<400> 251
atgctgagca atatttacat ctccaaatat caggtcacaa tccctattat acgttgaagt 60
tagaatgata aattatcata tgctttgcat atcagagctg gtatcacctt tcccataggg 120
aatgctgcct gaaattaaca tattcccaaa ggtaaaatgc atattctctg aaatgcattt 180
tattatgaca atggcatgta tttactcata aaaacaataa acacagacaa ttctacacta 240
gctctcaatc tgtggattta aaatttcagg ttaaaatcag ccatccacct tgtataggga 300
gaagagttct gctagtgttt acaataaagt gattccttgg gattagaaat agtaatgctg 360
tttttttatt ttgaagtggg ttctacttat gattggtttt aattctggca tttcatcttg 420
ccaactacta tcctgtttaa gcaatgttgt cagctaaaag gaatttctga ttaaactaaa 480
gtggtccagt gataagtaca tacacaccct actttgaata atcccagcca attggagana 540
atgctaccac accttattaa ctaatgtaat aaatctccca ttcatggttc ttttgct 597

<210> 252
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2219992T6

<400> 252
atcataaaat agaacgggag tttcaaaact gtacaagcca caaggctctg ggctggtagg 60
aaagaagggt ggggtcgagg gtcccagggt gtcggggggt gggagatgca gagagagcta 120
gagggtcacc cggcatctgt gaggacggct gggtcaaggc cataagctgg gatctgtaca 180
agggaaacat tcatcagaat gtgacccacc tgaaacagga gggaggaaaa tctttaaaag 240
tcttacaggt aaggtcccct gccccgaaaa aaaaaaaccg tcaaaataat aaggggtaa 300
tgtacatttc tcacccagtc ttggcaccaa ttttgtgctt taaaaaatat actccactgt 360
aagatttact taaaaaaagg tactctacag cagctgttta aaacataatt cttacagaca 420
aatatatata tatgtatgta tatatattaa acattttaaa caaataaagt catctattgt 480
acctgtgcag aaat 494

<210> 253
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2816984T6

<220>

<221> unsure
<222> 421, 497
<223> a, t, c, g, or other

<400> 253
actgatcaca gctattaaat aacaatgcac caaagtttta caatatttga acatctgcaa 60
atgtagagct ttctggtatg acacaaattt gaatacaaat ggaagttcat tgaatattag 120
gtttatcagt aagctagggg aaacaaatta catacattgt ataggtagta acctatgaaa 180
aaagtggaga ttaggtaaaa attattaagt gaaattattc atatgctttc agtttcatct 240
ttctcctggg aaagccccaa aacaggcctc tggaaaacca atttcataca tgtacaaaat 300
ggcatctgct ctcaaataga tatagctttc cttcaatggt agataagtca cagacgtatc 360
tcagacattc atttcatgca taaggatttt tgagacatct attccactga aatattataa 420
nggagtctac aaccactcta ggaaaaaggc acttcactgt gaaagttgga tttaattacg 480
tcaagtgtga gctaggntag actcaaaatt cagtattcat t 521

<210> 254
<211> 468
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 452209T7

<220>
<221> unsure
<222> 178
<223> a, t, c, g, or other

<400> 254
ccatagaaga atggtaatgt tgtatcagtg catgttctat ggaaaattca tatctcaagt 60
aactagccta gaaatcagag acagcactat gtcaagctag tatacaaggt caaagacaca 120
atgctgccaa tgcaattagt atatagaaat aatacgcagc tgttagaaaa agtctgtngc 180
caagtggata aaacagtagc agtgcactgc actgacatcc agaacagaaa atagggaagg 240
accagagaat gcacttcctg caaaaaaaaa gtccagtaga tcacaagcac aaagagttcc 300
caactgtctc accagctctc taactcatgt gtacctgcac cttcctcttg aaatctgaac 360
attataatac cacaagccac tttcagcctc cagtgggaag gctccagcca cacgccgata 420
tttcgtcctg cttcccgtca tctcatatct aaaagtcatg gcttaagt 468

<210> 255
<211> 261
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 638749H1

<220>
<221> unsure
<222> 169, 195, 199, 231, 248
<223> a, t, c, g, or other

<400> 255
atccgatttg cagtctggag cagtggctgg atttaagttg ctctggatcc ttctgttggc 60
cacccttgtg gggctgctgc tccagcggct tgcagctaga ctgggagtgg ttactgggct 120

gcatcttgct gaagtatgtc accgtcagta tcccaaggtc ccacgagtna tcctgtggct 180
gatggtggag ttggntatna tcggctcaga catgcaagaa gtcattggct nagccattgc 240
tatcaatntt ctgtctgtag g 261

<210> 256
<211> 634
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 640841T6

<220>
<221> unsure
<222> 117
<223> a, t, c, g, or other

<400> 256
ttcttttcac attaaacatt gtttaccaca atcagctaac agaaattact gtaacattgg 60
tcacgatgac ttcataaaac taaagataaa tgttatgagg aaacttcatt taacgtnaat 120
ggtaatgtta gatactgtat ttttccatgg taaaatacaa cttatcttga agagaaagca 180
aatagttcag atcagggaga catgctgagg ttttaataaa gaaaagcttg gccttgtcca 240
gaacacttaa caaagttcag gacaatttag gtaaaagaga tgagtgagac accagcgtta 300
ggcagggaca taggctcatc attcaggctt tatgtacatt actggatcta tgcagctctc 360
acctttagat aagtgagcta tatttttggc agagggatct tcaaaagtag ccttggatat 420
gaggaatcgt attttaacca ccaggcagtc caaggaatta tttttaaagg gacagctgag 480
tatttcacgt atatactatt aaggcatcta aatttttggt gttttcagta tataatttta 540
ctgctacttt ttattctttt ttttcatatt gtacaactat gatattaggt ttaagcgacg 600
taattctttc tctactagtg gaccagttta tttc 634

<210> 257
<211> 454
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 740878T6

<220>
<221> unsure
<222> 211, 214, 218, 292-294, 299
<223> a, t, c, g, or other

<400> 257
aagtacacag aaccaggcac ttctgggaaa cttgtcttct catccctttg ccctcccttc 60
ctcccccttt agtaaagctg gttgggcaca tttgctagga tctgtgggtt tcatcacttc 120
aagccttact gcttaaaaaa atgaggtaag aaatttctat cggaaaagtg aaactgacac 180
ataaaccaaa ccaaggtctt ccctggctgc ngcngcancg ttattgctct aagttggagt 240
gttctgtttg cttttattat gtattcggag tccttattgc cattctggct gnnntcgtng 300
ttggccaagg agaaatgatg gggaaggagc tcggtcgcct gctcccagct gctcagtccc 360
aactttctgc ccgcatgcgg cccgtcctac ccttgctggg agccagctct ggttctgggg 420
ccccagggcg gctctaacac tgggagaggt ggtg 454

<210> 258

<211> 519
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 779073T6

<220>
<221> unsure
<222> 158, 315, 439, 506
<223> a, t, c, g, or other

<400> 258
gcagaaaata attttgtaaa ctgtcacttc gcgggcaggg aggatcgatg ccacgtgggc 60
cccagctcac ccgggtggag gctgggagct gaaaccgaac ccaggcagga gatgggcgac 120
ggcggaggtg caaggcaggg cacggcgcac aagacgangg cggccgggcg gggtggatta 180
gaggtcactc tcgccgtaca gcgccgtgga gaaggacatg tagtccagag cacctggcac 240
ggagtcgggg ccggtgtagg gggccatccg cgcgatgcag tactcagcct ggtcgggtgg 300
cagctcgcgg cgcantcgtc catggtaatg tagttcttgt ccccagccag gatcttgaag 360
gaagccatga cttggtctgc tgtatctgtg tcggctgtct cgcgggacat gaagtcaatg 420
aaggcctgga atgtcatanc ccccaggcgg ttggggtcca aatgctcatg atgcgggcaa 480
attctgcttc tcctgggggt cttgcnatat cataaccca 519

<210> 259
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1445310F6

<400> 259
gagaagaagt ccctcaacca gagcctggcc gagtggaagc tcttcatcta caacccgacc 60
accggagaat tcctggggcg caccgccaag agctggggtt tgatcttgct cttctaccta 120
gttttttatg ggttcctggc tgcactcttc tcattcacga tgtgggttat gcttcagact 180
ctcaacgatg aggttccaaa ataccgtgac cagattccta gcccaggact catggttttt 240
ccaaaaccag tgaccgcatt ggaatataca ttcagtaggt ctgatccaac ttcgtatgca 300
gggtacattg aagaccttaa gaagtttcta aaaccatata ctttagaaga acagaagaac 360
tcacagtctg tcctgatgga gcacttttg aacagaaggg tccagtttat gttgcatgtc 420
agtttcctat ttcattactt caagcatgca gtggtatgaa tgat 464

<210> 260
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1806435T6

<220>
<221> unsure
<222> 487, 502
<223> a, t, c, g, or other

<400> 260
ggaggtgcag ggcagcgctc aggccttgct cagtttcttc ttgatgaagt agctcaccag 60
ccgctgcggc ctctgctggt actcgctgag cacattgcga gggctgctga tctggtcccc 120
ttccaggcgg ttcaggaggg tgacacacac cacggccgct tggaggccgc agggctgcac 180
atggcggcaa acaccgagga ctccatctcg atattgcgga cgccggctgc ataggctgcc 240
tccagatacg cctgcttgtc cttctccgtg taggagcaga gagccccatc cagacggcct 300
tgcccttcat agaagtccaa ggtgcacatg gtgttcccaa ccactgtggt gaactcgctc 360
agctctgcag aacacagcaa cagctcctgc accagcttct tgttaaggtc cgttttccgg 420
atgacccgct tccccaggac aatctgctca aactctgcct tgaagcaggt atccactgcc 480
tgctctntta tgaacaaagt gnggggctca aga 513

<210> 261
<211> 487
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1859340T6

<220>
<221> unsure
<222> 263
<223> a, t, c, g, or other

<400> 261
caatatacaa tttctgttaa atacaactgt taagggattc tgagaacaat tataagatta 60
ttataatata tacaaactaa cttctgaaat gacatggttg tttccttccc accctcctac 120
cctctcaaag agtttttgca tttgctgttc ctggttgcaa aaggcaaaag aaaatctaaa 180
aatagtctgt gtgtgtccac gacatgctcg ctcctttgag aatctcaaac agccagaacc 240
atcccgtccc acggactgcc agncgccagg acggcttccc ggtgcctctt tctcgaccat 300
tttcacttaa aagcactgtg agtagaatta gctgtgccgt tgctgccaca agggaggcag 360
cctggtcaag aggcgtggtt tgggatgcaa taaggccact gcttcttggc cactttcctg 420
gacattttca atcctgcctt tcctgggtcc tcggagcagc tggtcaggat gggcttccca 480
ctcagtc 487

<210> 262
<211> 426
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1889671T6

<220>
<221> unsure
<222> 376
<223> a, t, c, g, or other

<400> 262
caaataaaaa ttaagctaca atatatagcc tgaataaaaa tgactagaac aaatacaaca 60
caggacttgc tttcttgcat tagtcacaaa gcatgtgaca atctagaaaa cttcaaaatc 120
aattacattt ctttgaaaaa ggggtaacag cagttactga tacatcacaa ctaataaact 180
tataatacaa gtttcctgac atgcatttcc tgagtgaacc caaatgatca ttttttaaaa 240
caaggaagtt tcgacagttg aagtaaaata aaataattca tggcttctaa gcaacaagtt 300

ttgtttttta aaaaccaaaa gaaaattcag aacagttttg taataggata aattaaaggt 360
atgctaccac atatanaact ttgctacagt cagttaagta ttatacaact tttcaaacta 420
aaggaa 426

<210> 263
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1908860T6

<400> 263
ttcaatttct cccacgtcaa gagaaaagcc aacatgcttt tcctccaatg cataaaagga 60
acttccatag ggctggcagg agtcaggctg ttcaagacaa ctggaaggag ttgaataaca 120
tctatccagt gagtcctgca agacttcagg ctctactacc tccagcagct ccctgctgag 180
cctggggcat ggtgggcctt ggtcttcttc ctcttcttgg tccttttaa ttctgtccac 240
gtcaagagcc aagccaaggt actgttcctc caatgagtaa acagcactgc tgtagggctg 300
gcctaagtca ggcagttcaa gataacctga aggagtcgaa taacatctac ccagtgagtc 360
ctgcaagact tcaaggctct ttctcatcca gcagctccct gctgaagcct ggggcatgat 420
g 421

<210> 264
<211> 224
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2447337F6

<220>
<221> unsure
<222> 87
<223> a, t, c, g, or other

<400> 264
ctcgcctggg ctgtttcccg gcttcatttc tcccgactca gcttcccacc ctgggctttc 60
cgaggtgctt tcgccgctgt ccccacnact gcagccatga tctcctttaa cggacacgca 120
gaaaattgga atgggattaa caggatttgg agtgtttttc ctgttctttg gaaatgattc 180
tctttttga acaaagcact aactgggcta ttggaaatgg tttt 224

<210> 265
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2452210T6

<220>
<221> unsure
<222> 465, 503, 515
<223> a, t, c, g, or other

<400> 265
aaccaaactt atcaagcctg tgcttaaaca ccttaggaaa aaagacgtcc cactttctgc 60
accagggcct ctacagcacc agaactgcct ttcccccagc tgaggcctaa ggggcagtag 120
cccttctgca cagggcctag gggaaggttc tcagcaggag gtgggtcagt ccatatgccc 180
cagggagcag aagcagctcc gtcgggcagg aagggtgatg gtgagcagat aggacaggac 240
gcagttccag aaqtgctcag gggcaaggca ggggaatgtg gtccctcctc tgcccagacc 300
ctctgacctc tgagcagggc ctgtcatgcc tctgggtgct agagcagaga cccaggcagc 360
agcagcatgg ggtggccaat ggggcgggtt ccacaggatg ggagataggg cctcccgtgc 420
cctgactccc tgagggtctg gtcagtcgcg atgggtaaac tggtngccga actgccggtc 480
atcgtaaatg ctgtagcgct ttnacgtgga tgcgngcgga cacggtcccg cagtttcaaa 540
ggtctcctca tc 552

<210> 266
<211> 375
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2497145T6

<220>
<221> unsure
<222> 235, 257, 327
<223> a, t, c, g, or other

<400> 266
tgctaattag gcaacctgtt taagcagcta ccaaaaatga aaggcaagaa atgaaaggag 60
gacaaattat tggtttaaag ctatgatagt cttttgaaac gatgagtaag ttctctgagt 120
catggcagca tgatttaagg ttgaatttag aatcaatgaa ggaggagtcg atccactttc 180
cagtctggtc ttccatcagc attgtccttt ttaagaaata aggtggctgg aaggncctcc 240
agaagattct tcttccntct ttgttcaggt atataggacc atggcttccc acacttgtgt 300
aaacttctct ttgctgacag tgttgangat aatgtgattt gatcatactg tgtgcccctt 360
taaatgtcta aaact 375

<210> 267
<211> 518
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2612839T6

<220>
<221> unsure
<222> 97, 103
<223> a, t, c, g, or other

<400> 267
caaagtttta tgacccagaa tgaaacaaaa caaaacattg gtgttattga gggaattaaa 60
tctaacattg agagaaattt ggatttaaga aatatgntat ttnaaaagta tgttacagta 120
ttaacatctg gcaatatata atctattcag tcctttctag ccatttgttg gcaagaaata 180
ataattaaat tttttattaa aacaaaactt tttacattgg gagttattaa gagcgcctcc 240
ttttggtgta ttcgtttaca aataaaaatg aaatatttat ttgcattttt attgtgcttt 300
atgttgtttg ctttatgttg ttctcttggg cttacttccg agttggagat gggaaagtgc 360

ccaatgaaag aaatataaaa gaatactaat tggaagctga acaattattt tgctttataa 420
gggaagtcct gcaaagtttg tcatacagtt acgtcactat aaacccaaat acaatccatt 480
tcacttttcc atttgaagac ttggaatgta tcatcatc 518

<210> 268
<211> 318
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 508735T6

<220>
<221> unsure
<222> 116, 313
<223> a, t, c, g, or other

<400> 268
tttatttcat tacaggattg actttagcta ttaatgtaag cataccaggt gagggtgggg 60
ggtagaggga cttgcccatt ttactaggac aggaatgctc tttaagcagc atgganggaa 120
cattaactga cgtttgtgtt gtgcgtagga agatcattct gttcactttc gtgtcctctt 180
tttagcctcc actgagcttc agcaagtcat cctgatctcc gtgggaacat tttcgttgct 240
gtcggtgctg gcaggagcct gtttcttcct ggtccaaagg atgacgtctg ggactctgtg 300
tccattatct cgnttccg 318

<210> 269
<211> 566
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1737578T6

<220>
<221> unsure
<222> 299
<223> a, t, c, g, or other

<400> 269
tcagtagcag gtgccgtcca cctccgccat gacaacagac acattgacat gggtgggttt 60
acccgccaag cggtcgatgg tcttctgtgt gaaggccagc ggcagggcct cgtggcccac 120
catgcaggag aaggtgtccc ccttcttcca gtcctcggct gccacgcgca gtatgctggt 180
cacagcgaag gtggtggtgc cctggctggg ctcctgccgg gatgcccaag tcaggtactt 240
ctcgcggggc agctcctgtg acccctgcag ccagcgaacc agcacgtcct tggggctgna 300
gccgcgtgcc aggcacgtca gcgtcaccag ctcgttcagg gccagctcct ccgacggcgg 360
cggcagcagg tggacctcgg gccggaatgt gtttccggat tttgagaggg tggcggttag 420
cggggtcttg gactcggggt aggcagcagt gcaagtgaag gtcttcccat ggttccatgg 480
ctcggcacag cccggcagga cactggacac gctgtagcag ccacagaggt cacgctcagg 540
tggtcttgaa cagcgctctt cccact 566

<210> 270
<211> 453
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1865070T6

<220>
<221> unsure
<222> 274, 447
<223> a, t, c, g, or other

<400> 270
tgctcatttg atataaacat ctaattccaa gagagaccag tgctcaaata tagtttttc 60
agctaccatt tgatacggcc ataaatttgg atggtccatg ttacaatcct tccacaattc 120
tccacttaaa gacatcattt ttctatgttt ttaatgacta ttgccatcta acaattctac 180
aattcgcctc tttgcctgta aaaaggccaa ctctacgtcc acctgtgtct catattgcta 240
tcttttattt atctctgctt aagattgcaa aagnttttga ttttattatt cacctgaaca 300
atgtattgca attccaatac acccccatct cttgctgtta tctacagctt gtgacaaaat 360
gaacaccttg tagaaatatc ctactggttg ggttcccaag tctatgacac tatgagagaa 420
gcattgctga tggattgacg aggagancac cag 453

<210> 271
<211> 331
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2238605T6

<220>
<221> unsure
<222> 2-3, 6, 8, 19, 34, 131, 171, 192, 212, 214, 220, 304, 314
<223> a, t, c, g, or other

<400> 271
annggngnca gcagtgggnt gaaaccccca gaanggcata gaggcagctg ggcagccccc 60
caggcccttg agggtaggag cagggagaag cagcagaagg aggtgatgcc cctgccgctc 120
ctcccaaggc nagccccgtc cccacgctcc catgccaggg aggggtcagg ngccagaaaa 180
ggccctacat cnttgagtgg ggcccgagtg tncnggcaan ctgtctgtca tcccaaggcc 240
tggactctgg cagaggcgct tttcccacct ggtggctccc agggccgatt gcttggtcaa 300
gganccagat atantcttaa gacatgatgt g 331

<210> 272
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2448222T6

<220>
<221> unsure
<222> 33, 229, 350
<223> a, t, c, g, or other

<400> 272

atttactttg ttttactgta atttacacaa ganactggca agtaaactag gtattttaca 60
ttcaccacac attccctcaa atctccacag ttgttagaaa aacattaaaa tccatgcgcc 120
gggctctcat ttccatgtgc gcctaagctc ccaatgatac tacagatgcc agcgagagtt 180
aagttcatta aaaggagagg gctagactct ttatttcaca aaattagcna taatcttcct 240
cgcaccaaac actttgcaga caatgattat gctctgacaa aacctatctt acaacagtgc 300
ccagagagta aacatcagtc tttatcctga gtacacaaag gatgtatgan atgtgggttt 360
tgttgctgag gataacaggg tattgcaatg cagtagtgat cctacacatc 410

<210> 273
<211> 229
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2453340H1

<400> 273
gttgtcgtcc ctgctagtac tccgggctgt gggggtcggt gcggatattc agtcatgaaa 60
tcagggtagg gacttctccc gcagcgacgc ggctggcaag actgtttgtg ttgcgggggc 120
cggacttcaa ggtgatttta caacgagatg ctgctctcca tagggatgct catgctgtca 180
gccacacaag tctacaccat cttgactgtc cagctctttg cattcttaa 229

<210> 274
<211> 567
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2474214T6

<400> 274
ttctcacaaa acatattaca aatgacagca tgaaaaaaaa atcttgcaca gtaactcaaa 60
gttcggctct acaatgtacc cttaaactgg caggacattt ttgaaatcac aaatttgcac 120
ataaagaatg tcacgaacag ccatgtatcc atatacagca atcaaataag gaacttatga 180
cctaaagcaa aggtaaactt tcttgaaact taacattcta taccaactag gcaacctctg 240
cccaggatga gagttggatt tttcaaaaac ctctaattta atagtgcagc atttcgtttt 300
ccctgatggc ctgtgtttca cagcagtttt taaagactgc ttgttcaact atagctgcag 360
cctatatccc agctatggaa aaaaaagtaa atcttagttc aatttttgcc agttgtttct 420
gtatttaaat ttaaaaaaaa acacacttcc gctgggcagg tttagaggtt attatcagtc 480
tgtgcataac taaaagttca aagcaaattc aattttgctt aagggaacat tgtaaagtaa 540
caattcttgg gattacatgc ctcgtat 567

<210> 275
<211> 280
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2645695T6

<220>
<221> unsure
<222> 20, 139, 218

<223> a, t, c, g, or other

<400> 275
atttgcaaat gacagagagn gagaaaggct tcagacgcaa aggactttta ataagttacc 60
ttttgaagat gagacaagac aggttctaag ctaatcagac gtgtccacca ggtggacctg 120
cgctcttttc acaggtagng gttcctgatg tactctcggt acatggagga gtcctctttt 180
cctaggggct gcatgatacc ttggctggcc tggatgtngg cttggaagat ctctgtagat 240
tttctgtcta ctctttgggg ctgaacttca tagatgttat 280

<210> 276
<211> 569
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2716582T6

<220>
<221> unsure
<222> 18
<223> a, t, c, g, or other

<400> 276
ggacatacaa cacgcccnga cacacagcat agcagggcct cgataatgag ataatttccc 60
cccacgtctt gagaagaaga atactatgta tttctttatg aacactatta aaaaaaataa 120
acccctcaca acattctgca ggacctagag cccaagagaa cccactgaag atccatcatc 180
tgtgggatgg cggaggcagt ctctggggag caggagggaa tgtgcacagc caggggaggc 240
tgcagcagcc ttgcctctgc cgtgaatgtc aggcagtgac aagcagcaat aagggaacag 300
agggggtggc agcagtgttt ggcagctctt cagcaatctt aatcataaat tcgggtagga 360
tccagttggt ggcattgccg gggggggcaca gaggtggtag cagctttcac ctccttgggg 420
gtgggagagt tccctctgtt tggagaggga gaagaggggc aatgcagagg aaggagcgag 480
ggagcacagg ctgtcttaca atcttgcaga tctcagctgg accacagccg cagcgtcatg 540
agcagattaa acccgggcac tttcaggag 569

<210> 277
<211> 260
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3141568T6

<220>
<221> unsure
<222> 161, 185, 199-200, 215, 217, 226, 230, 242, 246-248, 253
<223> a, t, c, g, or other

<400> 277
cagtgcattt ttgcaaacaa taacaattca ctgagagtaa taacattcac atatgtaatt 60
agagtttaaa aatgtaaaaa acttagggta acaaacactt taaacttatt ttttagacat 120
tcaataagcc cattctccca caaactgttt gattacaaag nagcacaatg ggttaactgt 180
ggcanaacat aagaaatann gcaggggagg caganananga cttganaacn taaggctatc 240
cnaacnnntt tgncaatatc 260

<210> 278
<211> 330
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 510540T6

<220>
<221> unsure
<222> 29, 220-221, 227, 229, 236, 260, 265, 268, 272, 293-294, 310, 317, 325
<223> a, t, c, g, or other

<400> 278
atttgaatct aatagatcat tatttaggnt tatactctgt gaatatatat atgatattgt 60
atttaattaa tatctgagta atctcaatta ccattttcta ggaaggatag agtgtaagag 120
ctaaacattt catgtagaaa tattaacttt caaaagttat aataccagag ttttagagtg 180
aaggagtatt taaaatgtgt ctttctttgg gagagaatcn ntttgtncnt tactgncaat 240
aatttgaaaa ttggtaattn aatanctngt gnatatggcc aatattatgg tanngattag 300
cttctaggan aagttangtg tagcntgatt 330

<210> 279
<211> 62
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1285830H1

<400> 279
cccaattgga acctgggatc aagtggccga ggtcctgagc tggcagttct cctccaccac 60
ca 62

<210> 280
<211> 321
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1532801T6

<220>
<221> unsure
<222> 193
<223> a, t, c, g, or other

<400> 280
cttcactgcc ccggctggtc ccaagggtca ggaagatgga ttcatacctg ctgatgtggg 60
gactgctcac gttcatcatg gtgcctggct gccaggcaga gctctgtgac gatgacccgc 120
cagagatccc acacgccaca ttcaaagcca tggcctacaa ggaaggaacc atgttgaact 180
gtgaatgcaa ganaggtttc cgcagaataa aaagcgggtc atctatatgc tctgtacagg 240
aaactctagc cactcgtcct ggggacaacc aatgtcaatg cacaagctct gccactcgga 300
acacaaacga aacaagtgac a 321

<210> 281
<211> 282
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1747756T6

<220>
<221> unsure
<222> 225-226, 241
<223> a, t, c, g, or other

<400> 281
tataaatatt cagtgtacag gagtggtcct caccccaccc agtgaggatt ggatgaacta 60
ggctaaaagg aagggataac tggccaagaa agggacatct atgtgaaagt gaaactgaga 120
cagtgctggt cacaggtcat gctgcagaat aatacattcc caggcactgt cacgtggggg 180
acccaaaagg ccccaagagt gacctataac ctctccagaa gaccnntctg tgtggcatca 240
nagtccacca cagtttaagg aaatatttag gacttaacaa tc 282

<210> 282
<211> 256
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 032467H1

<220>
<221> unsure
<222> 26, 211
<223> a, t, c, g, or other

<400> 282
aaagaaactg tctaacgcac caaggnctct aaagaaacgt agttctatta cagagccaga 60
gggtcctaat gggccaaata ttcagaagct tttatatcag aggaccacca tagcggccat 120
ggagaccatc tctgtcccat catacccatc caagtcagct tctgtgactg ccagctcaga 180
aagcccagta gaaatccaga atccatattt ncatgtggag cccgaaaagg aggtggtctc 240
tctggttcct gaatca 256

<210> 283
<211> 371
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 511038T6

<220>
<221> unsure
<222> 349
<223> a, t, c, g, or other

<400> 283
acactgaagt gtgcaaggat taaccagacg tggtgaggtg ttgcacagaa attcctacac 60
caccatggac agcaagactt ctgtcccctt tcatttcaga ctggactttg gcatggtctg 120
ggtttggtcg ttaaggtctg gttcaagatg aggcctcaca gagagcagat caaatcaaac 180
caaccatctg gtcaatctgt cgcatgtaga tgctctttaa gggcagggag tacctcctct 240
catcaggtac acgattgcag ttggagctgg agttgatgac ttttaactca tgaggtttcg 300
gcctgtgcac agactttccc ccttggtcct gccctccctc ttcagagang aattccttcc 360
atgggcaaat t 371

<210> 284
<211> 577
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1383823T6

<220>
<221> unsure
<222> 548, 550
<223> a, t, c, g, or other

<400> 284
gctggggtgc tggagtggga aggggaatcc aaggagcaaa ccaagaaggt cctagggcca 60
gcctaggcct ccacggcccg gccgttgatg acgcggatgt ggcggatgac gtcctggatg 120
gcttcagatg ttgtgccctg gccccgatg tccggagtgt gcatattctc attgtccatg 180
gatgccagga cagccttacg gatggaggtg gcataggagt gcagcttgag gtggtccagc 240
atcatgcagc tggccagcag ggtggccgtg gggttggcga tgttcttatt ggcgatactc 300
ttgccggtgt tcctcgtagc tgtttcaaac accgcgtaca catggccata gttggcccca 360
gccacaaggc ctgggccccc gaccagtccc gcgcagacat tgttgacgat gttgccatag 420
agattgggca tcaccatgac atcaaactgc tggggccggg acaccagctg catggtggtg 480
ttatccacaa tcatgttctc gaaggtgatc tgaaggtagc gggctgccac ctccctgcaa 540
cactggangn aaaagccatc gcccagtttc atgatgt 577

<210> 285
<211> 365
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1517291F6

<220>
<221> unsure
<222> 297
<223> a, t, c, g, or other

<400> 285
ggcatgacca cgtccagtga agacatttga ggcagcacat ctcaggaccc aggcaataga 60
ctggccccaa ctcaggctgg actaaggtgt gattaattct ttgtttttttg tgtggaacag 120
ctcaccttgt cagacagcct cagggcatct ctgagacaca ggggcagaaa atgacattca 180
tcttttgagt cctcatccat ggagtgctgt gtttgggggg ctgcatctgc tgaagcgaga 240
accccattct gccaccccac caggatgccc attctccagg attctccaac ttactantag 300
actaaaccag aacaagcaac aaactgtatt tatgcaagca aaattgatga gaaaattata 360

ttcaa 365

<210> 286
<211> 206
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1862017H1

<220>
<221> unsure
<222> 110
<223> a, t, c, g, or other

<400> 286
ggaaggaatg attgcatcat cgataaaatt cgaagaaaaa actgcccagc atgccgctat 60
cgaaaatgtc ttcaggctgg aatgaacctg gaagctcgaa aaacaaagan aaaaataaaa 120
ggaattcagc aggccactac aggagtctca caagaaacct ctgaaaatcc tggtaacaaa 180
acaatagttc ctgcaacgtt accaca 206

<210> 287
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1922735T6

<220>
<221> unsure
<222> 387
<223> a, t, c, g, or other

<400> 287
tttggaccca gcatgtcctt aggttttacc cattcgtcaa actgctctgc tgtgagatag 60
ccaagttcga tagcagtttc ctttaaggtt gatccatttt tgtgtgctgt cttagcaatc 120
tttgctgcct tgtcataccc tatatgagga ttgagagctg tcaccaacat tagagactca 180
ttcatcagct tgttgatcct ttctgtattg gcctggattc ccaccacgca gttttctgta 240
aaggaaactg aagcatcccc cagcagcctg gctgagtgta acacattttt aatcatcatt 300
ggcttgaaaa cattcaactc aaaatgtcca ttgctgcctc cgacagtgac agcaacatgg 360
ttccccatga cttgggctgc aaccatngtc atgcttccca ctgagtaggg ttcaccttgc 420
ctggcatga 429

<210> 288
<211> 467
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2116322T6

<220>

<221> unsure
<222> 43, 122, 125-126, 130, 162-164, 169, 200, 240, 373
<223> a, t, c, g, or other

<400> 288
ctgaaacttc catttacacc atggcctcat ctatcaagaa gangaagaaa aggctctgcc 60
ttataccata aaaatcaagt actcatgtac ttgttagagg tggcaggata tttgtttctc 120
cnggnntttn gctctaagaa attacacttt cagtaccagt gnnntgacng aaccactggc 180
aaactgttgg aaatgtcttn tggattagtc agtgtaccat ttcataaagt gcttctggan 240
ttaaaatctg ccaagctgtc aaaagtgtcc acacttttgc aacaaaggat aaaagatccc 300
agtgggtatc accgagtcct tcccagctgg gtctcattat tggcactgct gctttaacct 360
ccaagccgct ggncctcacc ccaggcgaac tcctggccgt tcctcaggta gtggattgta 420
atttggatcc tcatctggtg tatcaaaaat agctttcaaa atagatg 467

<210> 289
<211> 310
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2366633F6

<220>
<221> unsure
<222> 28, 160, 172, 213, 254, 305
<223> a, t, c, g, or other

<400> 289
gaaaatagag aaagtcaaac ctcctccntc ccccaccact gaaggcccca gcttgcagcc 60
tgacttagcc cctgaagagg ctgccggaac ccagcggccc aagaatctga tgcagaccct 120
catggaagac tatgagacac acaaatctaa aaggcacgan agaatggatg anagtagtgt 180
cctcgaggcc acacgggtta atcgaagaaa gancgcactg gctttgcgct gggaagcagg 240
gatctatgcc aacnaggagg aagaagacaa cgagtaaact tccttcaacc caggaagcgt 300
ctttngtgct 310

<210> 290
<211> 519
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3271754T6

<400> 290
gtaaaaattt ttatcagcac tcattccagg agttgtgtca attacaaaca atgcattgtc 60
acatgacaga cttcctgtgt ctccacttaa tgactccctt tggccactat tttcaacaaa 120
acataaagta tcctcttcat tctcactgtt ttcagactgt tggctttcat cactgctgag 180
aactagtaag acagaattat ctttaccctg agatgtgttg ggcgcagacg tgtatagttt 240
ggtatcacat tcaaaatcta cattcccttc actgttcatg tcttcactga cacttataac 300
tgtggactct tcttcatcat cactaccacc acaatcacca aactttgtca agtcacttgc 360
ttttatgggg ctctttttgt tgttattcca tctgcctact tccacagttg caaatgtttg 420
agttaatgat ttcattacag cctcagagtt cagattagag tgcactgata cagcattttt 480
attttggggg gttgatgtct ctgagaaact aactgttga 519

<210> 291
<211> 535
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 161115T6

<220>
<221> unsure
<222> 292-293
<223> a, t, c, g, or other

<400> 291
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atccagaaat tgcagcactg tattgataaa gggctctttt cattaccagg gaaagaattt 120
aatgtccttc cttcctcccc aaaagcttcc ttggtgcaat ccagtacaga aaacgccacc 180
actttctgat gccaggagaa aagcaaaata aaaaaactgc ttgcacacat tagcactgat 240
aaaacaatga caatttcact aaaagaatgt ttaaagacta ccggatgctg gnncaaacca 300
acttcatgac tgcattaaca taagctaagt tacatacact tcaaatgcag tatagaatta 360
acactgcata tctaaatggc tcatatataa aatgtgtaat taaaacccaa acatacacac 420
tatgtttatt acattcccct acattgaaag tactgagaac aatttaactc tgaacacaaa 480
agtttagtga atttgctact gttccattac aggacaatta aaaatgagac tatat 535

<210> 292
<211> 415
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 308581T6

<220>
<221> unsure
<222> 393, 408
<223> a, t, c, g, or other

<400> 292
tcactctttt cttcatcggg ctctttcata tctaagggtt cattttgagt gtctactgta 60
cttggacctg tcgcttcctg acagttgccc tcagttcctg ctggagaacc aggaacttct 120
gtcttgattg gtttctcgtc ccttaatcct gtttcttcac cctcttcttc gttgtgatcc 180
ctacctactt ctgtactgtg cgctggaacc tccttgggct cagctgcttc ctggttggtg 240
aattctttct ctaaactatg ccctgtgctt gtctctaact cttgggggac ctctaccata 300
catttgtcat catgataaac tgtgtcatca ctatgcccta aaggacacga ggccactgtg 360
cctgcctgct cttcaacctg agtcactgct gcntctccca cattctcngt gtggt 415

<210> 293
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 394087T6

<400> 293
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tcaagtaact agcctagaaa tcagagacag cactatgtca agctagtata caaggtcaaa 120
gacacaatgc tgccaatgca attagtatat agaaataata cgcagctgtt agaaaaagtc 180
tgtggccaag tggataaaac agtagcagtg cactgcactg acatccagaa cagaaaatag 240
ggaaggacca gagaatgcac ttcctgcaaa aaaaagtcca gtagatcaca agcacaaaga 300
gttcccaact gtctcaccag ctctctaact catgtgtacc tgcaccttcc tcttgaaatc 360
tgaacattat aataccacaa gccactttca gctccagtgg gaaggtccag cacacgccga 420
tatttcgtcc tgttcccgtc atctcatatc taaaagtcat g 461

<210> 294
<211> 559
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 511300T6

<220>
<221> unsure
<222> 527
<223> a, t, c, g, or other

<400> 294
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cttgtttgtg tttgttttgt tttaattgca tgagcactct agatggtaaa gttttcagag 120
ttcattttat gcagggccat tctcagtcct caatgtactc ccacagatct ttttcatagc 180
cttcatgcac atgctgtaac aaaacccttc gtcgactctc acagtatctg tacttgtctt 240
gtactttctg ctttatatcc tgcagagaat cttgggaaat atctcgttca aggtagcccg 300
agagcacctc tgtggcattc tctagatctg cttggttatt ctcaaagata atggactggt 360
tattcttttt gaggtagaaa gcgaagacat aagtgtacat gagtgtggca cgacactggc 420
agaggacatc aactgccttc ttcaggaact gcacctcaat ccaggacatg ttgtgctgct 480
gcatctcctc cattttctgt ttcacctgag catatagttt gtgctcnaag cgcaggctct 540
gcatgtggtt catatagcg 559

<210> 295
<211> 472
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 604978R6

<220>
<221> unsure
<222> 143, 145, 150, 156, 361-362, 402
<223> a, t, c, g, or other

<400> 295
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gccgagctgc gtgaacgccc gttctacggc cgccttgtca agtatatggc ctccgggccg 120
gtggtggcca tggtgagtat ccngnaagcn ggcggncggc tccgggaccc ccacccccgc 180
gtgataccgc gcccgttcct ccgcacaggt ttggcagggg ctggacgtgg tgcgcacctc 240
gcgggcgctc atcggagcca cgaacccggc cgacgccccg cccggcacca tccgcgggga 300

tttctgcatc gaggaacctg attcacggca gcgactcggt ggagagtgcc cgccgcgaga 360
nncgctctct ggttccgcgc agacgagctc ctctgctggg angacagcgg ttggggaact 420
gggctgtaat gagttagccc ggcagattgc gcgttaacag agggttttca aa 472

<210> 296
<211> 550
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1218053T6

<220>
<221> unsure
<222> 25, 56, 363, 404, 448, 452, 473, 477, 522
<223> a, t, c, g, or other

<400> 296
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tttacaactt tacacattgc ttttacatca ctctttgtta cacttgcagt tccacaaatg 120
tgggtggtta agatactaaa tatttatata taagtctgcc ttttccaaag aaaataataa 180
atggtatgtt catatttata ttctgtatca aatataattt tactgaaagt tctcagaaat 240
aagcagtaaa aataggattc atcctctatt cagaaccaca aagatagtac agactgaagc 300
ttttaaaatt ttattaccct attaacatca gtaactcact tattttaaaa taacttcctt 360
aancttaaca ttctggcaaa agtttaattc cccatgtatc agtnacaaat caagaggccc 420
tttgtggttt tatgagacct aggctggntc cnttatgatt aagacacaaa gcncaanatt 480
gcatagggta cgaagtccac attactcacc gagatatgga angctcgcac tgtgcctatg 540
ctccatctgc 550

<210> 297
<211> 509
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2191256T6

<220>
<221> unsure
<222> 41, 64, 72, 77, 79, 83, 91, 95, 106, 112, 117, 141, 177-178, 181, 200,
213-215, 473
<223> a, t, c, g, or other

<400> 297
gccagtggac cagtgagggg tgagggcacg tcctccgaag ncgaggggtg gcatccctgc 60
ccangggcct tngcctnant gcnctaaggg ntggnccctc agacangctc angggangtc 120
cgcccacaag ggctttgggc ncctccctca tgaagacgcc acccctgcca tggggtnngt 180
ngcccttcac tgtcacatcn gccttggttg atnnnaggga ggttgatctc tctcagggag 240
aactgtgggg tggggatgta gccttgggag ggcccttcag gaagtaggag tgggggttg 300
gggagtgtgg tagacccaga aacttctggg gacgtcagtc atagttacta atatttggag 360
gcagtaggag atgctggccc caaggttgag gtatcagtta gagcagaaca attggaccta 420
gagctggttt ttcctttggg tttaggtgta agtgaactat tatcattgga gtngagaact 480
ggagagaaag ggttgtcact gtccagcac 509

<210> 298
<211> 589
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1287267T6

<220>
<221> unsure
<222> 398-399, 426
<223> a, t, c, g, or other

<400> 298
cacagcctga acatcacatc ttcagagaaa gttactttta tgccattgta tttactattt 60
accacacagg cattgaacat tctcattaac atgataagac aatttgctgg taaacattta 120
aacacacaga cattagtttc agtatctcaa catatttttg gtcataacca aggaaataca 180
tcaaaataat gacaacattg gctaatattt tacaagcaaa tatttaactc tgcatagttt 240
atacaatagg ctgtggcaat aaataatgtc accaatctca tcaactatta actggccaca 300
agaagcctaa cattcatttt aattatgata tgaaatgctc tattggtgta gtttcaacat 360
atccttaaat gtttgggtgt ttaaccttga atacacgnna agaaaaagta ctaaactgga 420
ctaagnaggt gtgtttggtt aactacaaat atgtcatgtt cacatagtac attcctaaca 480
tgaaggccaa tatttaaata gacaaactag cagtccaaaa aatgtgaatg tgcaaattgt 540
gagtaaacat tgctttaaat ttgcactcat ttgcaagtac agtactagc 589

<210> 299
<211> 150
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1288342H1

<400> 299
ggaaaaaaga aaatctctac ggacaactgg tttctattca ggattttcag aagtggcaga 60
aaaaaggatt aaacttttaa ataactctga tgaaagactt caaaacagca gggccaaaga 120
tcgaaaagat gtctggtcaa gtattcaggg 150

<210> 300
<211> 319
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1306707F6

<220>
<221> unsure
<222> 88, 121, 198, 218, 281, 316
<223> a, t, c, g, or other

<400> 300
gggacgctct cagctctcgg cgcacggccc agcttccttc aaaatgtcta ctgttcacga 60

aatcctgtgc aagctcagct tggagggnga tcactctaca cccccaagtg catatgggtc 120
ngtcaaagcc tatactaact ttgatgctga gcgggatgct ttgaacattg aaacagccat 180
caagaccaaa ggtgtggntg aggtcaccat tgtcaacntt ttgaccaacc gcagcaatgc 240
acagagacag gatattgcct tcgcctacca gagaaggacc naaaaggaac ttgcatcagc 300
actgaagtca gccttnatc 319

<210> 301
<211> 259
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1394439H1

<220>
<221> unsure
<222> 16, 91, 110, 152, 178, 221, 238, 257
<223> a, t, c, g, or other

<400> 301
cttcactctg cttctnctct ccatcgtcat tctgtactgc agaatctact ccttggtcag 60
gactcggagc cgccgcctga cgttccgcaa naacatttcc aaggccagcn gcagctctga 120
gaagtcgctg gcgctgctca agaccgtaat tntcgtcctg agcgtcttca tcgcctgntg 180
ggcaccgctc ttcatcctgc tcctgctgga tgtgggctgc naggtgaaga cctgtgcntc 240
ctcttcagag cggagtnct 259

<210> 302
<211> 512
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1454705T6

<220>
<221> unsure
<222> 409, 461, 496, 499
<223> a, t, c, g, or other

<400> 302
gtaaaatgtg aacatttaat tacctttaaa tcatatatga ataaatttac atgctataca 60
cttccaaaca cactgaacat aaattcaact ttataagaca tatacacagt ctgcttttgc 120
caacatatac cctgtaggtc acttaagatg taactgattt ctcagtccac ctgtgagcat 180
ataaacacac aaatatatgt ctgaagttga agattaagat aataaaccag agttgaatac 240
aagaagtcag ccacagaaga ttctaaaacc acaatcagtg actggaacac caaggcacaa 300
aaacttccct ttgtagtcac agagattaag tttccattcc cagtgcttaa atatggaagc 360
aggattggtt aatcacatac tatattttat agtgcatttc tgttgctgnt taaaaaggaa 420
tatttttaa attacataat gtattacagg aaagcattgg naaaataaac aggggtaaga 480
taaagctccc catacnatna aagtttttt tg 512

<210> 303
<211> 326
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1477962T6

<400> 303
caaagtacaa tttgactcaa acctgtccaa ccagcatcaa cagctactga aagaattcaa 60
acatacagaa gatgtggggg tggggtgaag ggtgggacac ttaggtccca tctctgccaa 120
tgtggcaaaa aaaaaaaaaa aaggaaaaga caaaatgact gacacagcca ggttcattct 180
tgtcttggag ctgaggcagc agccctagct cctgctacag acggaatact ggaggacggg 240
ctccctaggc gtaggtatgg tgggtcgggg gcacccaacc tagcagagtg atgcacagag 300
gaaggccagc cctgaccctc ctcctt 326

<210> 304
<211> 254
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1503230H1

<400> 304
tacatgccct ccgtcctgct ggtcgccatg tcctgggtct ccttctggat cagccaggcg 60
gcggtgcccg ccagggtgtc tctaggcatc accacggtgc tgacgatgac cacgctcatg 120
gtcagtgccc gctcctccct gccacgggca tcagccatca aggcactgga cgtctacttc 180
tggatctgct atgtcttcgt gtttgccgcc ctggtggagt acgcctttgc tcatttcaac 240
gccgactaca ggaa 254

<210> 305
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1509884T6

<220>
<221> unsure
<222> 333, 398, 404, 422
<223> a, t, c, g, or other

<400> 305
tatatttgga attagccagc ttgactcagt ttaggtgatc ccaattttgg tggcaacaac 60
caaagcatcg tagtcaggag ccagtcgaac atatgccttc ctctctccat cagactgaat 120
cagagtgttg actttggcca catcaatgtc acaaacttct tcacagcctg tttgatctgg 180
tgcttgttgg ctttaacatc cacagtgaac acaagtaggc tgttgttttc tatcttcttc 240
acagcctact cagtggtcag cggaaacttg atgataacat ggtggtcaag cttatttctc 300
ctgggggtgc tcttccaagg atatttgggc tgnctccgga gtcacagtgt cttgggccgc 360
cggaaggtgg gtgacatgtg gatcttgttt tttttgtngc tgtngacatc tttcaacact 420
gncttcttgg ccttgcaaag ccttcgcttt ggcttcggct ttaggagggg caggagcttc 480
cttcttcgtt cttgg 495

<210> 306
<211> 429
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1633262T6

<220>
<221> unsure
<222> 290, 337, 347, 379
<223> a, t, c, g, or other

<400> 306
actttacaaa tagacaaata ataaaaggct cagtggctaa aatagatggt aagcatcatt 60
gaaagaaatc aacaccatca cggtatctca gttggcttac acgtgtaaaa agaaattttc 120
aaagagcaat ttcacagaaa tgaagccagt ttttttctta taaacaaatc accaattctt 180
ggttcaaaac tgacatctgt tatgaaaatt accatatcac atatttgtaa gatgacaagg 240
agtaactcat cttcaaagtg caagtaagtc tatttacaac cacaaaaaan gcaatgatga 300
ggagaaaagg atttttaaaa aatatacaaa gattaanaac atttggngtg caaaattaaa 360
caatttttg ggtagaggnt taaagaggaa aagtgattga attacaggtt tcagctatac 420
ctactatat 429

<210> 307
<211> 496
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1669006T6

<220>
<221> unsure
<222> 342
<223> a, t, c, g, or other

<400> 307
cacagctcat aagtcacaaa accatattat aactcaaagt caaatatgta ttcgtttgcc 60
agatatattc gtcggaatat aagagctgcc aatgccaaag tcaggatgac aatcagtaca 120
gctgacccac catgatcagt gtggttgtct cttggctggt ggccctggat tacatctggt 180
gaagtagaca accttctctg actctgctgc tgggcccggc gctgtcgagg gctcatggag 240
gtattcttag ctacaggttg ggtaggttga tgaaaggatg ctgctgagga attctggagt 300
ccgtacgatg tactggccgt agcaccctgg aatgttgtag gnatatcatc ttgtaaatca 360
gttagtgaaa aagagtggtt taagtctgac tcagagatag tctttccaga tgaattgact 420
tctgcctata aacaagatag acccaagagc agtgtgacaa caggaacaac agggaacata 480
cacaatctac aacctg 496

<210> 308
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1706162T6

<400> 308

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agttgaagat gaggcgctgc catcaatgct gggacttcag gccaagggca ggaactgagg 120
aagccacaag ggaggacatt ttctgcagtt gctgaaccag tagcaactag gtcctgagaa 180
agccctctct cgtggaagaa taacagccag gcgggaaagc ttttcatcct gcaaagctgg 240
ggcagaagat tcttccttaa attgtcatct gcacttcagc tcaggaatcc tgttggctga 300
agtccagagt gtcctttctg attcctgaag tagatgaaca gcccggcccc aaggaagagc 360
aggcccagca caaagccccc gactccactc agcatcttgc tctgtgcaga ttcagaccgt 420
gctctccatt ccactgtgag agcgctcgtt acgcttgggt gctccacttg gcaagtgtaa 480
acctctccca ctc 493

<210> 309
<211> 505
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1706278T6

<220>
<221> unsure
<222> 32-34, 190, 235, 237, 239-241, 243, 248, 253, 255, 259, 266, 274, 313, 349, 406, 494
<223> a, t, c, g, or other

<400> 309
gcttataact ctgcagcccc tatgggtagc tnnnggtggg ggaagatagt atcaaaaaac 60
ggtgaagaga gctgatgagg ctgtggggac tggctggaag ctgctggcag ggtggagtgg 120
gctggggccc cggcagattc agatcgaggt acagcagcgt taataatact cttggagcgt 180
taatactctn gggaggggca ggcacttggg gggccctagg gcatgaaggc acttngngnn 240
ngngatgnga cangngatnt actgcnggac tggncggggc caggccctgg ggtttggcag 300
gcactttggg gantgctggg gttgggcagg ttgggccccg acagcccana aggctttggt 360
agtggcacgc acagtctctg ggccgggtct gcattaaata gaagangctt ctttagtgct 420
catctcgaag ctctgaaggc agaaacttgt actgctgctt ccggatctgg gccagtttct 480
tccgcgcctc ttcnagctct cgttc 505

<210> 310
<211> 82
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1729325T6

<400> 310
aatcttcttg tgccatgaga ctccatcagg cagtctacaa agaccactgg gaggctgagg 60
atcacttgag cccagaagtt tt 82

<210> 311
<211> 508
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 1750447T6

<400> 311
aatagaattg tgcttctttt gcagactggg gacaatgaaa tgtttagcta caattttccc 60
atacaaacat gaaacaatat tcatatagaa taaacaccct cacaaataac tgatgggtga 120
tgaacacaca ccaagttcga ccaaagcaaa aaataaactg aaaattgttg ggtggggtta 180
ttcatatttt aaattcaaca tgcttgctct atttaaaaat acctgtagaa gctcataata 240
aatagcttct attttcagac atagcagaga aggcatattc cattgttaac tgtaaaagca 300
actcttaaat ttaaaattac tgctatacca cctattaaaa taactttaga taaaatgcct 360
tcttttagca acctgctggt ttatttaaaa aattgtttta gaattatagt gatcaatatg 420
catttttaaa atacaatatt aattccatca tagccaatgg aaaattaaga cggttccata 480
tttctcagtt aaagggtttt cttcactg 508

<210> 312
<211> 445
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1813891T6

<220>
<221> unsure
<222> 37
<223> a, t, c, g, or other

<400> 312
atacaacaac aaaaaaaatt taatcaagtg aaacgtnaat aaactgaaca ataaacactc 60
aaaacatttt ccattggaaa catgtaaaga caatatgagg ttttgttacc atcttactgc 120
aattttctta tgtgttacta gtctacatac cccatgtttt ctgtaatcat gcagatgtga 180
atggaagttt gaatgattaa ataaatgaaa agtccgttta ctgcagggaa tcatttcaca 240
aggcagccaa accgggttta gagaacaaaa ctattcaaga aattctccac gtatttaggt 300
tcattttaga atccatgaac cttaagctgt tcctccttta caatgccaac ctccaagaga 360
aactgggcag atgtttttc tttggtcacc ttgaagctga ataacctctc cgtattcagg 420
atgttcaatc acagtaccat tacag 445

<210> 313
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1825132T6

<400> 313
ataattcaga caggtcaaca tatatgattt gatgggagaa tagttagggt tccatttcct 60
ttaagtttct attccaatca atttccactg gtgatgtcta actcagatcc cgtctcagtg 120
tacagatgca acctcgctac atccccagca tgatcgtata gactctgtca accagaatcc 180
caacagctgc cccaggggga gcagcgtgtt ccagacacac atggtttctt agacaaggta 240
gggtgcggct gcagcggaca ggcacttctg gctaggtcag gcttcaagct agttaatatt 300
gaatcttcct cttagctttc ctcagttcaa tgctcttctt aagtagtcaa gaatttcctc 360
aatcttatgt aggtaaaact ggaattc 387

<210> 314

<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1849154T6

<400> 314
gaaaggaggg aagaaggtag tggcactaac caaagtcaca aagcccaggt tggaacaaca 60
acaaatcact ttggttccta gagccaagcc tgaaggggaa acaggcagaa gggaagacaa 120
aatgggaaga agtctacagt caatgggaat ctttttctat ctcaatgatt tagttataaa 180
tagagattat tagtcttctc tctatacatg taacaaatgc cgaacttact accacgaaat 240
ttctaaaact gacttttca catttgttaa aaaaggtaaa aatcacatac ttttcttccc 300
ttccttcagg tcaagttctg aactaaaata ttacatgtaa caacagctgg tcctaacttt 360
tatacaaagt gaaactatat aga 383

<210> 315
<211> 443
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1980941T6

<400> 315
tagttacagt aatactttgc ctgtgtctta ccaacatgta gctgacagtc aaaattttgc 60
aatatagata taatatatag ggatatataa gaactacaag aaaatcccca aaacccataa 120
agttcaaatg tgaaaacaga aaagttttaa cactggagaa ttcgctatgg tgagcctaag 180
caatatatag aaaagagtct acaaaaaggc ttaggtgtta aataaatttt gacttcctct 240
tgctcagaaa atgtcggagt gctataaagt tccgtgaagt tccttaatgt gactcgctca 300
gcccttcata gctagtgcca atcctggcca agccagattt cttgtgtgtc tgcaaacaat 360
atgtgagccg aacatcacca atgcctcctg aaaatgggct ctgactcact tccttttttt 420
gccaagatag ggtttgcttt gtt 443

<210> 316
<211> 259
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1988078T6

<400> 316
taagttccca gctaagtgca cagatagaag cgaggtattt ctgggttaat gcaggagcca 60
gtgggttaca tgggtctggg cactgtggcc aaggggcgag taccaaggtt tctgagtcag 120
acccggccag agaccctgcg ctgaaggtgg actaatgtcc taacactgcc agctgctttc 180
tcctcacagc tggccacacc gcaaggcatc tcttcgacag taaatcattt cagcgatgtt 240
aagggaacag acgttaaag 259

<210> 317
<211> 468
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2132606T6

<400> 317
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ccagctcact tctttttgcc agcaccaaca ttggcctttg cagtcccccc gactttcttc 120
attctgttct tgcgttcctt tcgttgcttt cttgaggtct ttttcttctc atacaggcca 180
tgtcttgcaa gtctatgttt gggttcattt ttctttgcat aatccaggga atcataaatc 240
atgccaaagc cagttgtctt gccaccacca aaatgagttc tgaatccaaa tacaaagatg 300
acatccggtg tggtcttgta cattttggct agtttttccc gaatttctgt cttaggcact 360
gtcgccttcc cggggtgaag gacatcaatg accatttgtt tcctctgaag tagtcggttg 420
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<210> 318
<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2137446T6

<220>
<221> unsure
<222> 266, 274, 280, 283, 319, 352
<223> a, t, c, g, or other

<400> 318
gggtttttga atagtatcac ctggtatgaa aagttttccc aagaaaccac aaacgattgt 60
tcatttttc tccttttttg ttaacttttt gccacactca agtcagttta agtcctagca 120
aaaagacggt agttaggata ccactgtggc tgtagatgat gtgacactgg ttgaatttgt 180
gctggcgttt gtgtaacttc cctcgctgtt tgtgtttgat tcgttagggg gcacctgggc 240
ttgaattggc tcgaaggatt gctccngctg ccantgcaan gtngccgcgg ccctggttct 300
ggtgtgtagg taaaggtang gctggtggaa taaatgattc catcatttcg gnccaaagtt 360
actggaacct ggactgggtt gcc 383

<210> 319
<211> 309
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2180426T6

<400> 319
cagttgttta tacaacaatg aataaggaca agatatcaaa ctgaaaattc aaaaataaac 60
agaagaaatg taaacagttc taaaatatca gtatttataa atgttgctta gaggaaggct 120
attcaaagca tggtccatta actatttgtg agctgtccag aatgaaagag gcttgtgcca 180
gaatgaaaat caattacatc actaatcata ctggctcagt tgacttttt taaataacaa 240
gacttctttg ataaaggaag caatgtgttg atttatattc tggcacaagt accttattac 300
tgactagag 309

<210> 320
<211> 533

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2201912T6

<220>
<221> unsure
<222> 450, 486, 507, 513, 521
<223> a, t, c, g, or other

<400> 320
caatttacaa gtaaacaaat tattacttct tgaggagggt gggggttgaa aagcagaagt 60
ctcttcatga ttcctggcgt tgaaaatttc ttgaggggag aagtggaggc aggtgttgga 120
acattcacag tttaatgcaa aagcacaaat gaatgaaatt ctgtagttgc tttcaggcag 180
ttttgcgcat agaaaaaaag aaatgtttag aaaataaaat gtttattttg tctttcaggt 240
tgtggccaag ccagtccatt ttccacctta acaggtgaaa atttaaatcc caaattaatc 300
tgatttgtgg cagtaaaggt ccttaagtgc ttttagctcc tcaatcaatg tcttgttttg 360
attttcaagc actgccactc tgttttctaa acatttcaca tattctttct tctttctacg 420
acactctcga gctgcttccc tgttcttcan tagacggacc tctctctttc gtggctgctt 480
cttcancagg ctgtgtagga agtgctnggg gangatgcca naacaactcc agg 533

<210> 321
<211> 385
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2203287T6

<220>
<221> unsure
<222> 84, 89, 171, 179, 201, 231-232, 244, 255, 313, 315, 365, 371
<223> a, t, c, g, or other

<400> 321
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gccctcatct cttctgcttc agcnaaganc tcagtctctg cttgtagttg ttctgcaagg 120
atattcttct cttctaaaag ctgctggtgc ttccgctcca tctcctccag ntctccttnc 180
aaattcggct gccctctccc ntcaccttca acagctcttc atctttggcc nnaagttctt 240
cctnctggcg agtcncttgt agaagcggct tcacctttgt gaagactcgc caccactgcc 300
agtgccgtaa ttncnggtac gcggcaaagt tccggctgca agacccttta aggcacttag 360
ttgcngctgc ntcttggcaa aggcc 385

<210> 322
<211> 481
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2236363T6

<400> 322

gtgctgggct tcaccccatt tgccttaggt cttttaaaca aagcaaacct acttttcctc 60
cttcctctat cgccatttgg gagagaccca ttatacctga tgggggaaaa aaagtatagg 120
tgatctcttg caagaactgc acaattataa aacaaatgtt tgactttgcc ttgcagaatc 180
aattcccaat taattatcta ttaacacatt ataattattt aaaattcctt tgagcaactg 240
ttgatctcca taccaggtgc cagtgtgtga aacaaaatga gattcttttt ctggcttcat 300
tccaagtcac agagaacctt ttggattata cacagattcg tgttatctct atttttttcc 360
ttccctcttt tatggaagat aattaagagc tgattaatgg catgtctgac tccttatgac 420
tcatctgttt tttttaaggt gaactggttg catgtggcta atacaacctt aaaactcgag 480
g 481

<210> 323
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2291484T6

<220>
<221> unsure
<222> 12, 15, 26
<223> a, t, c, g, or other

<400> 323
catcattcat tnggnggaga ttagcnggga agtagctgta tatttttagt gagatcactg 60
atggcaatgg atctctggat cgtgctgctg cttatggtta aatcatatct aatgtgaaat 120
ttcgaattac atccagagct ccagtatcaa agccgcacat atccaacatg cctctatcat 180
ctgggtctgc aatggtgaaa ccatttgatg tcattccaca aacaatcaat ttagctggaa 240
tatccatttt ctttcgatac tccctcagag caatagcagg atggacacct ccagcaaagg 300
tctcattatc agtgaataca atgaagacat cagcaggtgt gtttgtcttc tgagcccaga 360
tcattggaag agagcaatca gttccacctg ctgggatctg actcata 407

<210> 324
<211> 213
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2375549H1

<400> 324
ctcctttact tcatcatgac ttgaagactc agaatatctt attggacaat gaatttcatg 60
ttaagattgc agattttggt ttatcaaagt ggcgcatgat gtccctctca cagtcacgaa 120
gtagcaaatc tgcaccagaa ggagggacaa ttatctatat gccacctgaa aactatggaa 180
cctggaccaa aaatcaaggg cccagtatca agc 213

<210> 325
<211> 222
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2423808T6

<400> 325
ccaccagttt tgagagtctc tccatttact gccctgttca ttttactcaa gggtctgtca 60
gcatcttgtt tatctttctg gtatacctgt gtaggtgttt ctttctcctg aagttctgtg 120
tcttgttttt ctcctatctc tgacctctgt gttacaacct ttgctctgtg gctctcaaga 180
gacttttctt catttggaag ctggggaaga gttcgtctcc tt 222

<210> 326
<211> 186
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2446704T6

<220>
<221> unsure
<222> 2
<223> a, t, c, g, or other

<400> 326
tnctaggagt atatttcaag attattacat tttaagccag cacaccatgg atgtacatga 60
agggccactc agtgtccctc gctgggacag gttgtgtgac ctgcccaagg ggctccggct 120
catttgccaa agtcaagacg acgaccaggt cttctgactg ctcagcccaa ccaataatga 180
aaaaag 186

<210> 327
<211> 367
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2452667F6

<220>
<221> unsure
<222> 47, 84, 256, 301, 306, 309, 312, 350
<223> a, t, c, g, or other

<400> 327
gtgttgcgcg actggccttg agggagagct ggggcctgct cccgganaga tacggctatg 60
tcgatcgaaa tcgaatcttc ggangtgatc cgccttatta tgcagtactt gaaggagaac 120
agtttacatc gggcgttagc accttgcagg aggagactac tgtgtctctg aatactgtgg 180
acagcattga gagttttgtg gctgacatta acagtggcca ttgggatact gtgttgcagg 240
ctatacagtc tctganattg ccagacaaaa ccctcattga cctctatgaa caggttgttc 300
nggaantgnt anagctccgt gaattgggtg ctgccaggtc acttttgagn cagactgatc 360
ccatgat 367

<210> 328
<211> 551
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 2503017T6

<400> 328
gcacattgat gagtttaaat cactatagtc cttatacatt gaaacagaac accagtagtg 60
aaatgacatt tattaattcc attaagacac aactacatat tttattctta taatggccat 120
gttaataagt tcaaggcata cttcaaggtt aggatcaaaa tttggccagg gcttcttaag 180
atagacctta aaacattgca cgttgatgtt cttttgaaca agtttgtctc caggaccagt 240
aaatatgaca ctttggattt taagctgatt aaagagaaca ggttttatta ataaagactg 300
atctcaaaat gctgggattg ataaaagaat taaagtttca acatatcaat tttaagaagc 360
aaagtgtttc aacaactgag aggtaagaaa atcttgttat ttgcatgtat ttttatataa 420
tcaatcaggt tgcagattct aaaattgctc atatccagca tgatggtgct tgagaccaat 480
aaaataagcc agcaacacta gaataagtac tcctgccaag gcagctccca ccgctatggg 540
cacaaggaag t 551

<210> 329
<211> 479
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2677105T6

<220>
<221> unsure
<222> 16, 164, 187, 296-298, 308, 317
<223> a, t, c, g, or other

<400> 329
actgaataaa aaccangggg caatataact gctactggtt gagtcataca gtgatgtgta 60
gtttggaaaa gaagacgaat gatagatatt gagccccttt aggaaatgtt gccagtattt 120
gaatttggct ttcatagtta tctcttgcac acgaagtaga gtancatggc tgataacaag 180
aggtcanatg tacaagttgc tctaatatgg cctcaatgag gcaccagctt caaaacccgc 240
ttgctgataa ttcaggtatt catggagggt caagacttca aagtcatgta cttccnnngc 300
ccagtagngc atctggngtt gcttaaggga gtctgtcagt gtagggtgca tagaattgtt 360
ctctggctat atcccattct aggaatcact ggatatccat ctggagtgga gggctgttaa 420
tctaggttca cttgacacca tcttcagcaa atgatcattc cctggggtca aagacatgc 479

<210> 330
<211> 247
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2702380T6

<220>
<221> unsure
<222> 18, 22, 27, 52, 60, 81, 115, 126, 170, 177, 195, 232, 236
<223> a, t, c, g, or other

<400> 330
agctagcagg ataacagntg anttaanggg cctcagacta catccaaggg antgtttatn 60
gggcgatccc aattacacca naagccaaac gacttccagc gtttcctgtc tttgnacttt 120
cttcanttcc acctttgccc aagtcatctg ctttttcatg gaccaccagn gtgcggncaa 180

tgatgcaatg gtctnctgag agtgagatca cagaatcttc aatagacaca tnggcnacac 240
catcttt 247

<210> 331
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2744270T6

<220>
<221> unsure
<222> 356, 395, 400, 417, 422
<223> a, t, c, g, or other

<400> 331
ttaaaaggga attcatgata aaaatagaag atacttgagg aaagatgtgg gaaatggact 60
ctgcacacac actaaactaa caatgcctct aaaactaatg attatagcaa aaaatgtctt 120
cacattaaaa ttctgctttt tatgtttttt tccatttttt acacaattac aaaagaaaaa 180
ataaaagccc taaaatcttg attatttttc ctttttttgg accaaatact cattttcctc 240
taagtttatt gacctgtgaa acttttttata caataaaatc tttcaagtga aagattaggg 300
ttaaaaagaa aaagatggat atcttaaagg gtacagcgaa tgctcagaac aaaggntgat 360
gggaaaatgg tttcagtcac tgattatttc attanccttn gattcactcg ccctttnatc 420
cntccccaac ccca 434

<210> 332
<211> 170
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2748823F6

<220>
<221> unsure
<222> 88, 119, 136, 141, 146, 150, 155, 161
<223> a, t, c, g, or other

<400> 332
caaataagga ggcactggct aagacggaag tgtctctcac cctgaccaac aagttcgacg 60
tgcctggaga tgagaatgca gaaatggntg ctcgaaccat cttactgaat acaaaacgnt 120
taattgtgga tgtcanccgg ntccanccan gaganacctt nactgaaatc 170

<210> 333
<211> 324
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2749472T6

<220>

<221> unsure
<222> 173
<223> a, t, c, g, or other

<400> 333
gaggtgcagg gcagcgctca ggccttgctc agtttcttct tgatgaagta gctcaccagc 60
cgctgcggcc tctgctggta ctcgctgagc acattgcgag ggctgctgat ctggtccgct 120
tccaggcggt tcaggagggt gacacacacc acggccgctt ggaggccgca ggnctggcac 180
atggcggcaa acaccgagga ctccatctcg atattgcgga cgccggctgc ataggctgcc 240
tccagatacg cctgcttgtc cttctccgtg taggagcaga gagccccatc cagacggcct 300
tgcccttaat agaagtccaa ggtg 324

<210> 334
<211> 445
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2824491T6

<400> 334
aaagttgttt ttaacattag actttctttg ccagttggca acttagaatt tttgcagagg 60
tgattattaa tacttctttg cagctaattt tagctttaat ttttctctct catctaaaaa 120
catatcaatt gcacattgtt cctttgactt aataactgca ttcttgaaac agaggttagc 180
tatttcactg tatccagaaa cgtggtagaa attctgaccc atcattcttt tatctcagtg 240
acaacaccag cagctattgt agaaccaccg taacgtagca tgaacctccc cagctcttta 300
aagtctttat atagctcaag agctattggt ctttgtgtct gtagctctac caatgcattc 360
tggcctttag tcaaaaactt aggctttttc tttgtgactt cacccgtgct tttgtttaag 420
acactaaatc aatcgtttaa taacg 445

<210> 335
<211> 515
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2873229T7

<400> 335
gacatacaac acgcccagat acacagcata gcagggcctc gataatgaga taatttcccc 60
ccacgtcttg agaagaagaa tactatgtat ttctttatga acactattaa aaaaaaataa 120
acccctcaca acattctcca ggacctagag cccaagagaa cccactgaag atccatcatc 180
tgtgggatgg cggaggcagt ctctggggag caggagggaa tgtgcacagc caggggaggc 240
tgcagcagcc ttgcctctgc cgtgaatgtc aggcagtgac aagcagcaat aagggaacag 300
agggggtggc agcagtgttt ggcagctctt cagcaatctt aatcataaat tcgggtagga 360
tccagttggt ggcattgccg gggggcaca gaggtggtag cagctttcac ctccttgggg 420
gtaggagagt tccctctgtt tggagaggga gaagaggggc aatgcagaag gaaggagcga 480
gggagcacag gctgtcttac aatcttgcaa aatct 515

<210> 336
<211> 201
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2890054T6

<220>
<221> unsure
<222> 21, 133, 183
<223> a, t, c, g, or other

<400> 336
atcaagtaat catggccagc nattattgat caaaatcaaa aggtaatgca catcctcatt 60
cactaagcca tgccatgccc aggagactgg tttcccggtg acacatccat tgctggcaat 120
gagtgtgcca ganttattag tgccaagttt ttcagaaagt ttgaagcacc atggtgtgtc 180
atnctcactt ttgggaaagc c 201

<210> 337
<211> 480
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2958621F6

<400> 337
caaatgatag acaaatggca tatactcaaa tatttatagc tgtttaatgg cattttatag 60
acatttattt gggttttgtt cttatttttg tttttaatta agggagtagt ggggtagatg 120
tgagttcatt gtggcattca gcttatattt gcttggcttt ttcatggtcg gtgacaccct 180
aattcctagc atgataaata gtaacccttt gtgcttgatt ttgtttaact tatttgagtt 240
gttttcaaaa tacattcttt ttaatttaaa aaatcagcta agcttgtgta tggttaagtt 300
tttgttttgt tttgtgtttg atttgttctt ttagggaaaa aatcctataa aatggctatt 360
aaatttttag ccaatgacaa tgagattttc ttaatattac tttgaattct ttacctctta 420
attcttagag tatgtggttt tgttgttctg tagtgtctac taaaatattc atttttttac 480

<210> 338
<211> 279
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3034495H1

<220>
<221> unsure
<222> 162, 210, 233, 253, 255
<223> a, t, c, g, or other

<400> 338
gattgaccac gttttaaaag tactctgggc actggtgctg tgttttcttc ccctccctaa 60
atttgaagaa ctatggagaa atggtacttg atgacagtag tggttttaat aggactaaca 120
gtacgatgga cagtgtctct taattcttat tcaggtgctg gnaaaccgcc tatgtttggt 180
gattatgaag ctcagagaca ctggcaagan ataactttta atttaccggt canacaatgg 240
tattttaaca gcngnggtaa cgattacagt attggggat 279

<210> 339

<211> 364
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3297413T6

<220>
<221> unsure
<222> 203-204, 211, 216
<223> a, t, c, g, or other

<400> 339
atgtaccata ctgcattatt gcaaaaattc actggtacaa aacactttgc agctggtgag 60
aaggcaataa aaagttgatt tttaaactca ttactataaa ttattcttac agtactttgc 120
aaattcagaa tttcaaactg catgttcttt ttctaaattg cccacagtac tcgaggttcc 180
tgaagctaag gcagctgttt cannacaccc ngggangagg tagcagatgt caagggattt 240
ccatttctct ttcgatgccg acatacttca gggcatcagc ctggctgtat ctgtaatcaa 300
aaaacagctc ttcgccagtc tggatggctc tcttgggcaa aaatacctat cctgtgatca 360
ccgt 364

<210> 340
<211> 540
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3326096T7

<220>
<221> unsure
<222> 456
<223> a, t, c, g, or other

<400> 340
ttgacacatt gcctcatttg ctttttaaa atctattatc tgacttaaac ctattcagca 60
aaaatgccaa taaattatat taatcatact ttgggtcttt ttaaaactag gaacataata 120
tgttttatga taaacaataa tactaaatct gagttgtatg aactgttaac ttgaaatttg 180
ttttagatgt ttagcttaaa acaaaaagaa aaccaatcac attaatacac tgttgcaaaa 240
gtttctccgg aatgccctcc acatcactgt gtgtcagcat ccttcggctt cttcactgag 300
gtatggaatg cagccatatg taggtgtcaa ggcactcatt ctaagctgtc ctatcctgca 360
catcttagca atcacattag atggagggct gatgatatgc actaactccc aacccaggct 420
atcttgcttt taaataaact aatttcttta aaaganaatc atcaactaag gactcaaatg 480
ctgaatttag aaattaataa ttccaattca atacacattc aatcaaatgg gttagtactt 540

<210> 341
<211> 249
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3728208T6

<400> 341
ttaaaaagaa aatgttatat tgtagataat gtgtactagg taggtagccg tatggtggtt 60
gtgtctgtac tgaatatgta cagttgtttt ttcttgtcat acttccctaa atacaatata 120
acagttgtct tcatagcatt tacaatgcat taggtattat aagtaatcta gagatgattt 180
aaagtataca ggattgccta gttataggca aatacacttt tctataaagc acttgagcaa 240
aatgtatat 249

<210> 342
<211> 229
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 023582H1

<400> 342
atggacatga gggtccccgc tcagctcctg gggctcctgc tgctctggct cccaggtgcc 60
aaatgtgaca tccagatgac ccagtctcct tccaccctgt ctgcatctgt aggagacaga 120
gtcaccatca cttgccgggc cagtcagagt attagtagct ggttggcctg gtatcagcag 180
aaaccaggga aagcccctaa gctcctgatc tataaggcgt ctagtttat 229

<210> 343
<211> 197
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 089562H1

<220>
<221> unsure
<222> 71, 76, 114, 130
<223> a, t, c, g, or other

<400> 343
cggtgttaga agcgctggta ggcttggaga ggcgggttag gaagacgcag ggccccttgg 60
cctagcttcg ntcgtncgaa ttcagagcac gtccttccga ggtgaaggaa cgcnaaactc 120
cacccatccn attgctgttc ggctgcgggc gggtcctttg gtcgggctga ccctgggtga 180
gcggcccgga gccaaga 197

<210> 344
<211> 543
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 108485T6

<400> 344
gcctcttcaa tagattgatg tttgtcagtt aaacgagctt tggttacttt gtgttcattt 60
acctcttgtt ctaaccgttg ttgtaatgat ttaagtttgt agtttaaatc tatctctaaa 120
ttattctttt ccttttctga gtgattaagc atgtcttgag cctcttttct ttctccttcc 180
actttttcga gattatgttt gagatgcttc acctcctctt gtaaagatgt aattcgagct 240

tgaaggtctc caatcatctc agaatcatga cctctgtctc ttcgttcagc ttctaatata 300
gcttgcagct ggtaataatc tttgtctgtt tgtgacttag aattctctaa aattcgattt 360
ctctcttgca actctctgtt cagggactct aactgactaa ttgacttgct catctctgtg 420
tgactcttcc tcaatcttac agctgtgtcc gattctgtcc taagtaagtc attggcttct 480
tctagctgct ttgtaactgg gacagcttct cattagcaag ctgtgaatct gactgacttc 540
ctt 543

<210> 345
<211> 425
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 169295R6

<400> 345
gcctcggagg cgttcagctg cttcaagatg aagctgaaca tctccttccc agccactggc 60
tgccagaaac tcattgaagt ggacgatgaa cgcaaacttc gtactttcta tgagaagcgt 120
atggccacag aagttgctgc tgacgctctg ggtgaagaat ggaagggtta tgtggtccga 180
atcagtggtg ggaacgacaa acaaggtttc cccatgaagc agggtgtctt gacccatggc 240
cgtgtccgcc tgctactgag taaggggcat tcctgttaca gaccaaggag aactggagaa 300
agaaagagaa aatcagttcg tggttgcatt gtggatgcaa atctgagcgt tctcaacttg 360
gttattgtaa aaaaaggaga gaaggatatt cctggactga ctgatactac agtgcctcgc 420
cgcct 425

<210> 346
<211> 522
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 261205F1

<400> 346
aggaaacaaa ggatatttta ttccttttt ctgttgttgt tgaggataga tcacgataca 60
gagaacagca atgggtcaca gcgcacggtt tggttggttt ccgcgggaac acagaggaca 120
ggaggggcgg gatctgggtt gagttcccac tctcgttatg accttcaacc tctcactgtt 180
cccaagggct gcacggagcc tgctgagtct ccaacccacc tcgctcaccg ctctgaccac 240
tgacaggcag agcaaaggat gcgggagttg cctctgctgc ccatctaagg ggacgtaggc 300
agagaagcaa aggcctctgc tctccctcca tccatcccgg tgtgctggcc ccaacggaac 360
aggagtcctt caactattgc ctgccagaga cccaattgca gggactgtag tctgcatctg 420
gatgagctgg gctgtagatt gaagtctcag aagcagggaa ggttggaagg ggtagggtcc 480
cagagcccat gggagttatt gctgaggaag gatatgcagg gg 522

<210> 347
<211> 452
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 450739T6

<220>

<221> unsure
<222> 367
<223> a, t, c, g, or other

<400> 347
taaaaccctt gtgttcatgg ggaggggttc agttcagtcc taagtgtttg tccattgacc 60
aaggctgatt gatctcgtgt tggcaacaga ggcaggagga cggttcattt gctcggctat 120
aacttgctat gggtaccctg cagcatgcgt taatgtgcac tggtatctgg aacctcggtt 180
tttcccatca atgagcagaa gtggcatttt cctgaagtag tcaataatat ctgacacaga 240
cagaaagtcc tctttccctc ggagtccagt tcccaacaag taaacttgac tttccttctg 300
ataacggatc tggatgttgt aaactttatc tttgtacaac accatgagga catatggatt 360
ggttgtngtt tttttagagc tgtctctgac cagaaatgtg ccatcctggt ttatctttct 420
aagagcagct tctgcctctg gtcgggtaat at 452

<210> 348
<211> 452
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 502311T6

<400> 348
gtaaacataa tcctgaatta cagtattttc cataggacaa aacacagcaa gacattttct 60
atttagacag gcaacttttt gatatagagc ttatttatac tgaagaatct ggaacaaaac 120
acaggacaca gtactaatct gtcaaatata ctatgaaatg catagtctcc acttaaaatg 180
ctgaatgaca cacacgtttt gcaagcatta ctgctttcca caaaaactgc tgaataggag 240
ttccgtccct gccaagatca gtgtttaaga gatactttat gatgctgata agtattattg 300
gtggtggtgg tgttcagaaa gtttgtcact catgcagatg tctgaaatct tgttccgaat 360
ccatggaaca cagggtggag gccagctccc ccttttttag atgatcacat agttctgagc 420
agagatgtgg tcctcaccct gcagttcctg ca 452

<210> 349
<211> 260
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 511666R6

<220>
<221> unsure
<222> 32, 51
<223> a, t, c, g, or other

<400> 349
tctgcgcatt gatgaatagg cagcatttta cnaattaact gatgtgttgc ngtatatcat 60
ctctttgatg attgctcctc ttctttgtat cctgtcttat aatttcaaca catttgcgat 120
actcaatgtc tattctaaat taaccatgtt ttgtaccaca aactcattgc ccatggatct 180
gttgctgaaa caaggaagtc ttaaacaaga agtggaatct ttctgttatc agattgtgtc 240
tgaatcaaat gatcagaagg 260

<210> 350
<211> 435

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 567649T6

<400> 350
ataaggggtg ggtgttattt aaaacaaatg accatatcag atacatattt gtcacaattc 60
ctaagttcaa tattcataag ggctagctgg agaagaccac tttgggcagg aaattagtct 120
gcatttattt tatagcacaa ggagcaggac tagatgagcc agagtcatgg caggaggtta 180
attctccacc tccaaccctc ttttttcatg cttcaaataa gaatgtgcag aacccttcag 240
gcaatcctat tggttagtat ccttagcctg ttcttgaccc tagggagaat cagattcctt 300
tggtctatga cagtaataga agttatttct ttagataaat tttgtttaag gctttaaatt 360
aattctatct tggcattgtg tggttctaaa ttcattcatt catttaacaa aacttacttg 420
agtatccgct ctctg 435

<210> 351
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 701644T6

<220>
<221> unsure
<222> 18, 62, 64, 98, 102, 108, 202, 227, 300, 409, 426
<223> a, t, c, g, or other

<400> 351
tgctataaca tttctgancc aaaggcagag ggtatccatt aacttcattg ttgccttaat 60
tnangggtgg gtggcaatgc caagggtggg aacacaanga anaaaganat attaacgtca 120
gctaagaaat caacatgtta tcaggctata ctgtagttgg ttgcttctgt gttactggac 180
atgacaaatg atctggtaaa tnatgttaaa ttggcttgaa acaaganagt ctcccaattg 240
ttagccacgg tttcagtcag ccctggatga aagatggaaa aatttgacat atatctcatn 300
aagggaattt gttgcttcca tggagattat agatggaggt tactgaggaa ttaggtagct 360
gggtggctta ctccaggcat cccttagtag gtaacacttg agaaaagana aaaatcagga 420
agtcanggaa ataattcaaa ggcatttgtg agcctgagca gatatagcaa ttta 474

<210> 352
<211> 541
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1237113T6

<400> 352
ttgtagcagc tgtgtaggta ggctaccagc tccttacttc cagtaagtgg atgtctccat 60
taatttccag cgtgtcaata ctgctgagct ctttaaatct gtgtttgtac tccaggctgt 120
gtacgccatt tactgcaacc ttgaattctc taacatcaca gtaaattatc atctcaaagt 180
acatcccagg actaaatggg aaagaggtaa tatttctctc ttcttctccc caggactcct 240
gaagaaaaga atttcttaca aatgctttaa tattcaggcg tgggttcaag tgtagagcaa 300

tatcctttga ttttcctgct agtaggtcaa cattaaagct tttggcattt gcattcactt 360
ctcctttaac gacgacagtt cgtccagggc ccatgggggt gttcaacctt gcagcgaatg 420
gcaggctctt gaaaagaagc cacagtcagg accaagaggc ctgcagaaag cgatctccag 480
ggaaaactcg tgtccaaaga acactacaga atgtttcaga gccatgaccc tgtaaatccc 540
a 541

<210> 353
<211> 75
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1271372H1

<400> 353
acccaaatga attctaaacc aatcaaatgt ctgggaagcc ctccaagaaa aaaaatagaa 60
aagcacttga agaat 75

<210> 354
<211> 256
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1272733H1

<400> 354
ttcctgatcg tccagcaggc attggagtat attcagctat atggcagtta tgcctggcac 60
tcatatttaa aatcataatg acagtattca cttttggcat caaggttcca tcaggcttgt 120
tcatccccag catggccatt ggagcgatcg caggaaggat tgtggggatt gcggtggagc 180
agcttgccta ctatcaccac gactggttta tctttaagga gtggtgtgag gtcggggctg 240
attgcattac acctgg 256

<210> 355
<211> 220
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1297406T6

<220>
<221> unsure
<222> 90, 125, 174, 196, 214, 216
<223> a, t, c, g, or other

<400> 355
gaattactat acagtaaaaa ttcaatactg tatatgaccg acacgtatta agcatacata 60
caaaatgaac ggattgaatg ttcaaaaacn aaggtaaaaa taaatagcaa tgataaaact 120
ttggnaaaaa taatgcacat tttagttgtg gaaaatatgg gtcttatata tacntagttt 180
atacttaata gaaagncatc tccttaaaat tgcncnaaac 220

<210> 356

<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1297646T6

<400> 356
gctctgtccc agagagacag ggccatccct catgtctgtt attgggttgt agataaacaa 60
aagtataaat caaacaaact gcaaattact ctgtctcttt tcctaatcaa tacagcaaca 120
gtcctcagtg gtactgcacc actctggaaa aaatgccttc aggttccttc ccatccccca 180
aggcagcagc aaatccttcg tgtcgcctcc tactggccaa ggcagccaaa gatttgaaag 240
tctttggctc gtagatggcc agatccgcta ggactttcct gttgagctcc acctggcact 300
taactaaatt cccaatgagc gctggatact tcagtccatg ttcctggcta gcagctgtaa 360
ttcgattaat ccagagggtc ctcatgttct ttttcttcag gtatcgggct ttggtgcatt 420
tcacaaaggc tcgaatcacg gttctgaccg ccaacctgta gcagcgattt ttccttcccc 480
ggaagtgctg gcgtgcttca gaactcctgg atccgaaagt agcggtcggt gacgcgattc 540
cgcagccaga gc 552

<210> 357
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1369303R7

<220>
<221> unsure
<222> 11, 23, 70, 117-118, 172, 195, 220, 247, 259, 270, 279
<223> a, t, c, g, or other

<400> 357
ctttgacaga ngtgaaggct ganacccggg ctgaggaggc cccagagaag aagagggaga 60
agcccaagtn tcttcgcacc acagcaccca gtcatgccaa gttccgttcc actggannag 120
agctggagac accatccttg gtgcctgtga agaagaatgc cagcacagtg gnggtttctg 180
acaagtacaa ccttnaaccc atccccctca aacgtcagan caacgtagct gctccaggag 240
atgccantcc ccctgcagng aagaaatacn agccactcna cacaacacct aatgccacca 300
aag 303

<210> 358
<211> 330
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1395739T6

<220>
<221> unsure
<222> 48, 66, 68, 76, 127, 152, 168, 177, 185, 192, 306
<223> a, t, c, g, or other

<400> 358
aaaatcccat catgaccctg gaagccttta gaacagtttt atcctttnaa acacaggaca 60
catttntncc agtgcncaga atttcaagtt tacgtggttc agcttaagaa gtgtatgttt 120
cacgttnctt agaggacaac agacccaagt tntcactatg agaaaggnac agctgtncca 180
gcttnaatgg gntaatccaa caccaccagc tacctgtaca acagtaagat ggtcaatccc 240
tgtctgttac ccacagggac agcatgacaa ggagagagcc cccatctgac ttaatagcaa 300
accaancccc ttattcttat ctctgctgct 330

<210> 359
<211> 469
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1430425T6

<220>
<221> unsure
<222> 368, 374, 417
<223> a, t, c, g, or other

<400> 359
agatatattc caggatatag gaagaatggc aaatatcggc ttttctcaga tatctttgaa 60
attattttaa tgcgtacaaa acatgtagaa gatgcctctc gagatggctt taaaatgccc 120
agtattaaag ggggacaggt gcatggcagc taaatgcctc aacaagatca tgcagagagg 180
ggcatccatt ccctcccaag atcctaagaa aaggtacctt gctccagcct ggctgaaagt 240
ggagcaaaga tatgcatttt ctattggatt tagggtccta gggtctgtcc tggggcacag 300
acacctaaga ccatggcacc ttctccccag aggacagcct gagggtaaag tataaattgc 360
tctgggangg aganacggag agaacagctg tgtctgcagt tcattgttgt gtgagtntaa 420
gcagctctct tcctctctct gtgcttcatt agagggataa atactggta 469

<210> 360
<211> 257
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1443824T6

<220>
<221> unsure
<222> 21, 81, 162, 165, 196, 211, 231
<223> a, t, c, g, or other

<400> 360
gcaagttttt cacggataga natatggaac tgagcagatt ctttttttct acaaaattat 60
ggtataaact tgctcaattt nctatcttat tgctaataaa ccttacaggc gcacagtttg 120
taaaataaac cccttaagga ctgaatgcgt agagcatgct cnccngtacg agaaataagc 180
taaaaatgag catatngaac ctacatctgg nccaacacag tactgaatgc nggcaaacat 240
gtatcacaac acagggg 257

<210> 361
<211> 335
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1482416T6

<220>
<221> unsure
<222> 322
<223> a, t, c, g, or other

<400> 361
aaatttttt ctcacctgtt ttagacaaca gcttgtaata gttttgaatc cattaagatg 60
ttgctttcaa tttgaaatat tttgtgtata catgtatata aaaaataacc caatgtatga 120
ctcatctgac cgatgtttaa gatcaataac ggcttatttt tcaacatgca gttaggaaga 180
gagggaagca agccaacctc tctacagtat ctttttgctg gcttgttttt gtagtggtat 240
caatagtggt ttttggaggg aaccatgtgc cttcagccta tctagtcaag atcagatacc 300
acgatcaaca agagcggtag angagatggg gaaag 335

<210> 362
<211> 380
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1518133F6

<220>
<221> unsure
<222> 10, 176, 359
<223> a, t, c, g, or other

<400> 362
gttgcttttn tctgccaaaa ggagcctaca tttataatgc acttattgaa ttcattagga 60
gcgaatatag gaaaagagga ttccaggagg tagtcacccc aaacatcttc aacagccgac 120
tctggatgac ctcgggccac tggcagcact acagcgagaa catgttctcc tttgangtgg 180
agaaggagct gtttgccctg aaacccatga actgcccagg acactgcctt atgtttgatc 240
atcggccaag gtcctggcga gaactgcctc tgcggctagc tgattttggg gtacttcata 300
ggaacgagct gtctggagca ctcacaggac tcacccgggg tacgaagatt ccaacaggnt 360
gatgctccac atattctgtg 380

<210> 363
<211> 261
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1556430F6

<220>
<221> unsure
<222> 36, 106, 109, 134, 145
<223> a, t, c, g, or other

<400> 363
cgcgctcaag cccatcctgc aggcgtggct cgaggnggcc gagggcgccc agcgcgagaa 60
aatgaacaag cctgagctct tcaacggcgg cgagaagaag cgcaanggna cttccatcgc 120
cgcgcccgag aagngctccc tcgangctat tcgccgtgca gccccggccc tcgtccgaga 180
agatcgccgc catcgccgag aaaatggact caaaaaagaa cgtggtgcgg gtgtggtttt 240
gcaaccagag acagaagcag a 261

<210> 364
<211> 483
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1569648T6

<400> 364
gatgtcacgt tagattttgt cacaactgga tttagtggaa gcaggggaat caagttcact 60
attttctgaa acacacaaaa aagggatggg aacaatgact tacaactaag attgctcata 120
aaagaccatc agaaagatcc ctaaacaaaa gctaaatagt tacagttaat ggtaactggc 180
aagggattta atgcatttgc tggtattaag tttcttatgg aatgaatgaa tgaacccagc 240
agcattttat gacacagctg ccagaacatc ccatagaaaa acaattttgt aggaacgtga 300
tggcaacaat cagcagccaa tattctcaag agttcctaat taccaaaagc atatacaatt 360
ttagtctaga aaaataagtc aattttataa aattaagttt ttagatcgaa aagcaccccc 420
tttaacaggt acagagatac tgaaaaatag tcctaaaaat ctcactaaat agtttacgga 480
gag 483

<210> 365
<211> 226
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1642853F6

<220>
<221> unsure
<222> 45, 191, 212, 218
<223> a, t, c, g, or other

<400> 365
tgacctctga catttttttt gacaacttta tcatttgtgc tgatngaaga atagttgatg 60
attgggccaa tgatggatgg ggcctgaaga aagctgctga tggggctgct gagccaggcg 120
ttgtggggca gatgatcgag gcagctgaag agcgcccgtg gctgtgggta gtctatattc 180
taactgtagc ncttcctgtg ttcctggtta tnctcttntg ctgttc 226

<210> 366
<211> 273
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1663769T6

<400> 366
gcatagtaaa gacaaaaaaa ggaaatgcat acataagaaa gggacactta gaaaggacct 60
gagataccta aatgtctgtt ctaaggaaca ctggaaggag ggaatgcaga tgcaggcagc 120
aggcctgggt ctggcttctg gcctgggttt ggagcctgca gaagctgctg gcatgctagc 180
tctacccagg gaacagctcc aagagggagt gttgggatga aggatcacac ttgggatagg 240
tgctgctggt accaaatgtg attttagctc cat 273

<210> 367
<211> 212
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1666209H1

<220>
<221> unsure
<222> 12, 59, 83, 91
<223> a, t, c, g, or other

<400> 367
gtcatgactg anctgaaggc aaagggtccc cgggctcccc acgtggcggg cggcccgcnc 60
tcccccgagg tcggatcccc acngctgtgt ngcccagccg caggtccgtt cccggggagc 120
cagacctcgg acaccttgcc tgaagtttcg gccataccta tctccctgga cgggctactc 180
ttccctcggc cctgccaggg acaggacccc tc 212

<210> 368
<211> 610
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1697901T6

<400> 368
tgacaaagca gcagtgaacc tctaaaccaa ttaataaaag tcctctactt acaatccaaa 60
ccagtaacct catcattgtc cttatcccag gcaaggcaca gggttagaca gcagacagag 120
aaaacagaga acacagtcag aaagggcatc aacaggacag tgtcagacag cagtgcagga 180
aattttgcaa atctgattcc aggttgtaga cggactgctc tcccccaccc cttcgttatt 240
aaacagggct cattacatgt ggacccagtt gtgggccatc cctgagattc aatgttcgct 300
gcttctccac atggaggatg tctggtaact caactcagca gcaggctgtg gcaatctccc 360
aagtaaggat aactttgttt acagagtaat cgtttcctcc tcctttgtca acgcaagtcg 420
ctgtgtgctg caggggaaga cacgcttgct tcctcctgca tcggtaccat tctcctttat 480
tgttcaatat ctatgagtga tttctagatg ttgtggctta cccttaaaca attcatgcta 540
aaaatgaatt aaaatacaag acatttatac atgtacaaac aaatgttaag atgcaccatt 600
tctatgtatt 610

<210> 369
<211> 157
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 1830604H1

<220>
<221> unsure
<222> 28, 45
<223> a, t, c, g, or other

<400> 369
gtgaggtgtt tgagggcata tgtttganag agggagcatc accanaggaa tcctttctgt 60
gaggtggaaa cagtggtcct gaatcattgt gctcacacct aacttgaaat ctggtcttac 120
tttcatgctg ttatgatttc acctggtgaa tcagtgt 157

<210> 370
<211> 569
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1867862T6

<220>
<221> unsure
<222> 499
<223> a, t, c, g, or other

<400> 370
ggattgagca taaacccctc caaaaacaat ttttaaaaaa cccaaaaagt acacaaaaaa 60
cccctgaata caaaatctaa ccttttcccc cagcctccct aagggtaagt tactgacttt 120
aaggcagcta ttaatagatt gccccacaat tccaggtttc aatttagcca atataggaca 180
tatcaccaag tgagctaatt cacagcaatg cacacaagac tcctcaaggt caggcacaga 240
gtgggggggtg gtggccaggg ggaattgagg gaggctctaa gctaggggca ctgcatggtg 300
ggacaggatg gccccttgag gactgaaccc tggggagaag acaaacagta ataataaaaa 360
caaataacaa gtactttaag aatggattgt atgacctata gtgacagatg acatcactaa 420
tactgaaagc ttcttatatt aataattttg gcaaaatgtc attttgtaat atagtatatg 480
ctttccaggt gtgggggtng taaagtaatg agggccaaaa tcatcctgcc ccaagactaa 540
tatcttctaa tggtgcatta gcaaggaag 569

<210> 371
<211> 489
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1890182T6

<220>
<221> unsure
<222> 435, 449, 473
<223> a, t, c, g, or other

<400> 371
ggatttttta cgttttttttt caatgctttt ctttttctgt cctttttttg gtgaaaatac 60
ttgaccatct tcagatgttg tctctatgtt acccctctct attccaacat catcctcttt 120
ctttttctta attggtttct tttgaattct tgctttcttc ttgttttcat catgagctcg 180

atcagatgtc tctcgatctt cagactggtg gtgtcctata atgtcctgtg cacgcattct 240
tgagctttcc aggatttctg tctgttctct ctgtttatct acagaagaaa ctttctcctt 300
gagttcctgt tcttcgtagc gccttgaact ctctttcctt tctggtttac gatcctcctc 360
tttccatcta ccctgtctgt cttctgtgag gtgcgaggga ctaagagaac gagattcttg 420
aggtcgtaca acttngctca agagtctgng gttttcattt ttaacatctc cantgttgta 480
ggcaacact 489

<210> 372
<211> 340
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2072691T6

<400> 372
gagaggataa gtttctttct cagagtgtgc tgcagccaga cataatattt ctccttggca 60
gaaactctgc tgttccaatc atacatgtag ccattgagtt caatgtgaag atccaggagt 120
gggcgttttc tttcttgtct cagtttctgg gagaggcact gcaggtacag ggacggtgag 180
ctgtgagact gctccagcag ggacatgtcc gcagtacaca ggctccagaa gaagtcagct 240
tctcggtgaa ctgtgcacag ccctcgcttc tgagccttga attccacatt cttcatcgct 300
gggcccatcc acctccaaga aggctgctgt cctccagctg 340

<210> 373
<211> 364
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2176527T6

<220>
<221> unsure
<222> 153, 177, 188, 224, 261, 276, 315, 346, 362
<223> a, t, c, g, or other

<400> 373
cacattcaat atggaaactc aaagaatact ttccacctga aacaattaaa ctagattcta 60
ctagcatata atgcttaaca cattacagca ataaagatgg taatccattg tcttctatac 120
ctactaaagc caagatggta aagccaattt ggntgcaata gtgtcataag ggtaggntat 180
taccatcnaa aaataaaaca aaatcagcaa ataacagtaa tggnagatga atatttttac 240
tctgtttcac tgaaaagagg ncaaaatgtt aaaacnccac agtactgcag gtgaacaatc 300
cccatgtaaa cttcnccata tgatgtttta atgttttatt cctggnatgt aaagactgga 360
gnct 364

<210> 374
<211> 548
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2204560T6

<400> 374
gaaaagtcct caacgtcctg acgggactcc cctgaagcca aggcagtttg agtccattca 60
ttattctgtc ttggatctta ggcaaagccc cgggcccctt ggagcagcac cagggttccc 120
gacaccccca ccgacagggt cgaacgtgca caggctggga ccacgccgga gttcattgag 180
ccctcgtggg ggagggcagt tccagggacc aggaagggat tcccgtccag tgtcaggtta 240
tccacctcgg gcagctcgtc aggctgcggc gccctgttca gtctgttgca gctgagatcg 300
agcactctga gcttggctgg cagtccttta ggcacctgtt ccagcccagc gaacgacaga 360
ttgagggagt tcagggcgct ggaccacatg catctcggag cgctagggtt tacggtggcg 420
cgcagaagtt tgtggctgag gtctaggctg tggggctgca cacctgccgc cgccagtgcg 480
gggcacacgc ctgtgggcgt ctccattcct gtgttgcgca cgctagattt ctggatgggc 540
cgggaact 548

<210> 375
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2233159T6

<220>
<221> unsure
<222> 193, 209, 240, 257, 270-271, 362, 382, 496
<223> a, t, c, g, or other

<400> 375
cagaaatata gttgcgagta tacaaatgtt ccaatagaag caaaatatct ttttaatatt 60
taacaagtta tcacagatag ctaaaaacat agatgcaaat gaaattcccc cagagaacaa 120
actgaaaata tctggtatca gtgctctgaa atcccaacta tgaaagccat atacacaaaa 180
atgtaaccct tanatcattg caggacaang gaagaaggca gttcagtggt cgatcagtgn 240
gctcaagcaa ataacantaa ctaaaaattn naaatggcag aatggtagct aaaccacttg 300
agaacaggtt aatgaaatta ttggtactat acttaaaaca ttaagtaaaa gaagtgaatg 360
anactcattt aaagttgtca anaaattagc aactacttgg agcttatcaa ttaaaaggca 420
acaaggtaag cagacacatt cattagatca aaagaaatta gatcaagttc actggaatca 480
gtctgtaact actcangtca caatgacttc agt 513

<210> 376
<211> 246
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2242627H1

<400> 376
accagcaaca acattcacag gtctttgtgc atcatgatgc agctagttct gtggtgatag 60
tctttgacac agataaccgg atatttggtt tgccaaggga gcttgtggta actgtatcag 120
gtgctactat gtcggcattg atcctaacag cttgcattat ttggtgcatc tgctcaatca 180
agtctaatag acacaaggat ggctttcatc ggctcaggca gcatcatgat gagtatgaag 240
atgaaa 246

<210> 377
<211> 369
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2326810T6

<220>
<221> unsure
<222> 367
<223> a, t, c, g, or other

<400> 377
aagatataga catttgaatg ccaatgtctt attctggaga gacactggag ctgaagttca 60
acaatgatca cacttattac ctggcaataa aaacacaacc atctttccag tcaggtcaaa 120
atatcctact ttttgccttt ctaccaattc ccaaacattc acagtttttc aaggaccact 180
aataaaatac aggaagcttt taaagacagt aagagaacac ctagtgtaag ttaggtgaat 240
taaagatggc aaaggagatt acatcctcaa cactgacagc ttccaagact tagaaaagag 300
attgttcctt gcttctaaaa ttgtctattt tccctgtagg aaatgaaagt ttttccttac 360
aattatnaa 369

<210> 378
<211> 541
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2383611T6

<220>
<221> unsure
<222> 535
<223> a, t, c, g, or other

<400> 378
tgcttggttt atactacata attataagta agcaaaatag tatgacttct tttgactaat 60
ctactcctaa agccttgagt tgccgttcaa tctcttcatc tgagattgta gcctttgaag 120
tagaggcaga tggtaagctt cgagcagctg atggagcttt ggccatcttt ccagaaattt 180
caattccaat ttcatcaaga acttgattca caatatcctg gctttcttct tcgtcatcag 240
aaccgtcaaa gatgtcatca agtgtatcat tgatcatttc ttcagtcatt tccattttca 300
tgttttcctt ctggaaattc tgcattgttt gtaatgtctt ttgtggatcc atcttcttgt 360
taactgcctg cattgttttt gctgtggtag acattgctcc agccatcttc atttgggaat 420
tcatcacttt tgtttgtgta gacatagaag taacttttga acttacagca aaagttctcg 480
tcttctgttt ccgtagatgc acaagttgtt tggctaaaaa ctttgcaagc ttccntatta 540
c 541

<210> 379
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2478839T6

<220>

<221> unsure
<222> 234, 468, 473, 483
<223> a, t, c, g, or other

<400> 379
caaagcttct ccgatacaaa atatttggtc atgtattcat aatttgcttg acatttccag 60
caaagcgaag atggcaataa caaaaggaac ttcttacaag agaagagaaa gacccacgga 120
gctccagagt ttctgttgga acaagactct tctgttttgc ttatatacag ttaagttcgt 180
ttagtgtctg atccagtgtc tgatgtaagc ccacgttctc ttctttggcc tggncaagtt 240
tctcttccag gtcatcaatt gtcttttcca gttttgcaac cgttctctct gcaaattcag 300
cacgggtctc agcctctttc agtttgtcag acagaagttt aatttcttct tcatatttgt 360
cctccttttc agaatacttt tcagatgcag ctccagagat ttcagattgt tagtaacatt 420
cttgaggtct tcttccaggt caccacattt tagttcagac acctccgnaa ggntcctctg 480
ccntctccag ctcaccctcc agga 504

<210> 380
<211> 487
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2498039T6

<220>
<221> unsure
<222> 243, 390
<223> a, t, c, g, or other

<400> 380
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gaaaggtttg ggtggcgtgg gcctcatgcc acactgattg gtcagtagac agggggcaca 120
tgccaaacac cacagggcat cagatgctgc tctgtgtgct cacaagtgtt ccctgtctta 180
tctgggcctt cgaagggagc acacccagaa gcgagcaact gaagcgaagg ggcttcctaa 240
ggngcccctt ccaggcttgt ctctgaagtc acagcaacac tgttttaagc agtatgttta 300
attggatgat ttccacaaac tatccacgaa gtttctaacc atcacaattc agtgaagtac 360
aaaacactga gttacaggct gtgggaagan aaggcagcac caatggtggc accttctaat 420
actggttgtt ctaggggcag ggacagggaa aggtcttttt ttaaaaccaa gcccctcatt 480
tcaatgt 487

<210> 381
<211> 415
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2553130T6

<220>
<221> unsure
<222> 223, 274, 326, 380-381
<223> a, t, c, g, or other

<400> 381
caaaataaaa aagggatcaa tcaacatata tcttagaagt ccttccaaga gtcttggtat 60

gcaacagcca tggaggctgt gacctttttc cttcttttct cagcctgcag ttcatttaag 120
gatcaccgga gatgactcgt gctctagttc ttaaaatcaa acttgttctg ccaaatccaa 180
gaccctgaat ttgtccaaat tgtagaaaca tgcttttacc acncgtccac caaaatacct 240
cccattcaag tcaacaaccg ctttaattgc tgantcaact ctctcaaatt ctaaaaatat 300
ccgtactgct tcatcatcag gggcancagg aatttcaaat atcacacatt ttccaacttt 360
gccatatttt tcacattctn ncttgggttc aacttccaag tcttcatcca cctct 415

<210> 382
<211> 536
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2652321T6

<220>
<221> unsure
<222> 444
<223> a, t, c, g, or other

<400> 382
ctatttcgta cttgggggtt gggagctcaa tcttcaggga aacagaaaaa agagagaagt 60
attcatgtaa gtaggagatg agaagcagag tgagaatcac ttttaggaac acagattggg 120
agcaggtaca ggagaatcct gggtgaggat gaagaatgac ctgggatggt tttggagcta 180
gcctctggaa tcctttctct tgaccatggc catcagcacg agggcactga ccagcacggc 240
atacaaggtg gccttcccta gcaagatctc atagaggatg gtggcagaca ggacccctg 300
ctggtaagac tcggaggtga agccacagtc tgctctaccc caggcctcgg cgctgacgat 360
ctgggtgaca ggtttggccc tatcctgggt ccactcgtca ttctccgaga gccgtagaac 420
tggacttgac agcggaagtg gttncggggg ttctgccaga aggtggccga aaaccctcag 480
gcggcttctc aggcagtatc tggagtcatt gagggcgggc tgctccttga ggggct 536

<210> 383
<211> 122
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2729382T6

<400> 383
cattaaaaaa actgaaaaaa ttaaacttaa tatatataaa atatatttaa tttgcaaaaa 60
tgtgaaaaat ctgcctcatc cagtaaacag tcactgaaat tttaattaag agtgccctcg 120
ag 122

<210> 384
<211> 445
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2766696T6

<220>

<221> unsure
<222> 393
<223> a, t, c, g, or other

<400> 384
aacatatcaa tttgctttgc agagcaattt acataaaaat tcatgatgta taccaacgac 60
agcatagcat tatctacctc agtttgtgaa gcatcctttc ctacagatct cagcaaaacg 120
cagagccagt aggggaaatt caagctttca tttgggggcc tctggggtcc tacctgctgg 180
cagttctttc agcagaaagt ggggtacggg ggatgctgaa gaggggggaag tggaccccat 240
tgcctgttaa gtcccatctg tctcagtttg aagcaacacg ggaatttcca ttggaggagg 300
gttggcctgc cggcctggcc cttctctcac gccccctcta cttcagctac atttcttatg 360
catgttcctc aaagctgtga aaatcaatac aanaaaaact gacctttact tcattcctgt 420
aacaggctat caggatctca aggag 445

<210> 385
<211> 543
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2783918F6

<400> 385
cttctatgta ctcatttcac ttttacccaa ggattatttt taagttattt ttgtcgtttt 60
cacacttcaa acataaagac aaaaactatc aaaaatatat actgtgtttt acatatgtgt 120
ctattttcac acatatatgt atgtatgttt atatgtatgg aaactacaga agcacatgtc 180
gccaataaga gctctgagac acctttgacc acttaccctt atcagatgcg atttgccaaa 240
tgagttgtgg aaacaagttt tttaaactga atttctgagc tttgtgaatt tagaaatgca 300
aaggaaagtt tgtggacatt tacagggatc atggttttat tgtcctttaa actcttcgat 360
actttaccat tgtcttacta taaatccaaa atcctaacgc cacccacgag gctttcaata 420
cctggcttct tgtgatttct ccaggctaac cttttaccct ccttcccctc agcctctctg 480
ctttagtgaa ctttctccta gttttttgaa gaagttcatc aattcaagct tttgtacatg 540
gga 543

<210> 386
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2822377T6

<400> 386
ctgaaaagat tatttcttgc tttaatccta atatgctaag aaaagttcat tggcacaaat 60
atccagaggt attttacagt ttcatttacc tttggtggca aagagtattt tgctaaccgt 120
atggatacag tcacatagtt tccaatgcac agctttatgc taaagagaat tcaaatgtgt 180
ctctttttttt tgctaaaaaa gggatgtaaa aagtccaata tgaaacagaa cgagtgcaac 240
acgaaataca aaatatgcct atcatgtagg cttttgaaca gttaatagct ctacgtgtta 300
tctataaaca ttttttacta gtaacatcac tattgtataa atattaaaaa caaaaatgac 360
attaaaaaat agcatatgaa ctttacaaaa atggctactt ttagtcttcc taaactaaaa 420
tcggattcaa atacgcaaac aaatctacac taactaatca aaacacacca a 471

<210> 387
<211> 641

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte LD No: 2835582T6

<220>
<221> unsure
<222> 212, 218, 226, 571
<223> a, t, c, g, or other

<400> 387
aggacataca acacgcccag atacacagca tagcagggcc tcgataatga gataatttcc 60
ccccacgtct tgagaagaag aatactatgt atttctttat gaacactatt aaaaaaaaat 120
aaaccctca caacattctg caggacctag agcccaagag aacccactga agatccatca 180
tctgtgggat ggcggaggca gtctctgggg ancaggangg aatgtncaca gccaggggag 240
gctgcagcag ccttgcctct gccgtgaatg tcaggcagtg acaagcagca ataagggaac 300
agaggggtg gcagcagtgt ttggcagctc ttcagcaatc ttaatcataa attcgggtag 360
gatccagttg gtggcattgc cgggggggca cagaggtggt agcagctttc acctccttgg 420
gggtgggaga gttccctctg tttggagagg gagaagaggg gcaatgcaga ggaaggagcg 480
agggagcaca ggctgtctta caatcttgca gatctcagct ggaccacagc cgcagcgtca 540
tgagcagatt aaacccggcc actttcagga ngagattcgg aacccaatca ctgacaggtt 600
ttgaaagttt aggttcgtaa ctgtttcaaa gctttctcga c 641

<210> 388
<211> 305
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2837720F6

<220>
<221> unsure
<222> 240, 255, 277
<223> a, t, c, g, or other

<400> 388
tgtatccaga gaccaacaaa accaaaaata aaggtgttta tagcagcaca aatgagctta 60
caactgattc cactccaaag aaaacacagg ctcacacaca gcaaaatatg gtagaaaaat 120
tttctcagtt accattcaaa gtggaagcta aaccatgtac ctcaaattgt agaattaata 180
ctttcagaac agtgccaata gaacagaaac atgaagtctg gggttcaaac cagaactacn 240
tttgtaacac agacnctgga aactgatggc ctttcanctt ctgttgcctc tccaagtccc 300
aaaga 305

<210> 389
<211> 512
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2935837T6

<220>
<221> unsure
<222> 48, 61, 231, 314, 390, 400
<223> a, t, c, g, or other

<400> 389
aaaaaatgct cagcacatta actcaaactg gaatgacaaa cgttaggntg acagttttgg 60
ncaaaggctg tgccttgctt ttttaaaaaa tgggtacatc aatgctcatt ttaacaactg 120
gcataaaatc ccactaattg gctaataaaa acagatacaa atacagaaca tttaaagtaa 180
taacaattca agtgctgggc tttttacaac aaggggggtga taaggaaaga natgaaaatt 240
cactgcaaac cagtctgctg aacgcatctg ttaaggttta ctgtttaaaa aaagaaaaga 300
agaaaacaga aganaaaata aactgaaata gggctgccaa ttgctaccaa cagagtgggt 360
ttggctatta catttattta gctctactgn acaccttacn agggcggaga agccactatg 420
tgttacaggc aattcacaga gaagccactt accagacaag ctgtctcaga aaaagaaggc 480
ttctttttat ggtcattatt tcaaactttt cc 512

<210> 390
<211> 592
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3137077T6

<400> 390
tttggtcaag ttgtttccat taaaaagtac tgattttaaa aactaataac ttaaaactgc 60
cacacgcaaa aaagaaaacc aaagtggtcc acaaaacatt ctcctttcct tctgaaggtt 120
ttacgatgca ttgttatcat taaccagtct tttactacta aacttaaatg gccaattgaa 180
acaaacagtt ctgagaccgt tcttccacca ctgattaaga gtggggtggc aggtattagg 240
gataatattc atttagcctt ctgagctttc tgggcagact tggtgacctt gccagctcca 300
gcagccttct tgtccactgc tttgatgaca cccaccgcaa ctgtctgtct catatcacga 360
acagcaaagc gacccaaagg tggatagtct gagaagctct caacacacat gggcttgcca 420
ggaaccatat caacaatggc agcatcacca gacttcaaga atttagggcc atcttccagc 480
tttttaccag aacggcgatc aatcttttcc ttcagctcag caaatttgca tgcaatgtga 540
gccgtgtggc aatccaatac aggggcatag cggcgcttat ttggcctgga tg 592

<210> 391
<211> 336
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3142624T6

<220>
<221> unsure
<222> 324, 331
<223> a, t, c, g, or other

<400> 391
aaaataatta ccaacaatac attatgtaca ccatttacag gagggtaaca caaaccttga 60
caggtagtaa cttttcaccc cacatcactg aacgcttaac actcctggct gttacatgtc 120
acaggatacc actggggtca gtcactcgaa gcacaataaa tataaaatgt ggtccttcca 180
tgaaattttt gataaccttc tccaaaaacc ccacaaaggt gaggtttaaa agaagttttc 240

tcagaatttc aatgatcttt ctcgtcccct acaaaaagtt cacaaaagca acaaaatgag 300
ggctgatcct accacaataa gacnttttgg nccagg 336

<210> 392
<211> 564
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3294993T6

<220>
<221> unsure
<222> 519
<223> a, t, c, g, or other

<400> 392
aggctttgga cactttagta gaacggaacc aggggtaag gtttccagag aagtcctaga 60
ggtatatttg tcttgctggt cctcatagat actatcgttt tgactaaaac tgtcaacagg 120
taggtcttga gtccccggc cttctggagt gctaggggag ttggagttag aatttacaat 180
ctgaggagga tgtgagatgg gcagataggt tgaaggcagc ggtggagggg tggggatggc 240
agcagccgca gggggcagtg ggaggcctgc agccgatttt tcactggtgg gattcaaatg 300
accatttagt gttggtggta ctctgttcgt caggtgagat attcgggctt ttttattcat 360
taaaggatca ataaactctg aatccaaaag ccgtttctga ggagaagata cagcatctct 420
actagaacat acaggagatt ctgaacggct ggtgcctgta gcattctgag acggatttag 480
ttttctagag agcactgact ccaatgaccg tctgtctant tcactgtatc caggccagtc 540
tctttgaagc tctttaaaaa cata 564

<210> 393
<211> 379
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3820893T6

<220>
<221> unsure
<222> 57
<223> a, t, c, g, or other

<400> 393
tgtgacttgg gcaacgtggt ccaggagggc ctgagactaa cacatccacc tcggcanaag 60
gacatcaaat atctcttaca gtcggaaaaa acagcctttt gtgtatttcc ttagtttacg 120
aaatatactc gaaatgctat tattagctga atttgtggtt tccttttgag tttctgagtt 180
attcttattt atttttccca ttttgttttt gcaccaagga gaccggagtc aaataatact 240
cagcgactga tttcctctct ttggactgaa aaattaaaca gatactaaat gatgacagtg 300
aatttagaga gggctccaag ggcttgaaag aacatgtctg ggataatatg gtgcttctaa 360
gagtattgca atcacatcg 379

<210> 394
<211> 462
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1403970F6

<220>
<221> unsure
<222> 426, 453
<223> a, t, c, g, or other

<400> 394
tggccctcag ccttctctcc ctgaagtctg tggccagcaa aaatctggac tttacttcac 60
tctgatgctg aacacccccc tcccccacct cttccccaat atctcagatc ccaagcctcc 120
ctggtttgct tctaggaagc tcagcaattc cctgaaaaga atgcagctca agtgactgct 180
ccacttttтc accttggcct ttgcggaagg ctgtggctgg gctaccctat gcatcgatca 240
atgaggtcat atttacccag tgcttggcct agaggcccaa gacagggtca gcagtgcttg 300
ctttggctct agtttgggcg ttggttttgc agcctcagca tcagcacagg caggccctct 360
tctccagcag tgctctggct gatatttctt ctttttccca cagccaatcc cactaatcct 420
gatgangctg acaaagttgg ggctgagaac acnatcacta tt 462

<210> 395
<211> 361
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2749575T6

<220>
<221> unsure
<222> 221, 243, 258, 281, 301, 324
<223> a, t, c, g, or other

<400> 395
catctccaaa aaaatagttt tcatctaaca attatgaaac aaatttgaaa ggcaggatga 60
ttcacaatat agacccagta gaggcttata cttcatataa atgaaaaata tcagttctac 120
aatttaaatg tttactttgg attttattat agaagaaaat atcattgtaa ttataaaagc 180
cataaaaatt ggaactgtat tgtgaaatta catcaaggta ncagatttta tataaatgaa 240
cantaaaatt caattttnat ttatttaaac gtagttaaac nttggaagac aatctccccc 300
ntggggaaga aaaaaaaaaa aaanccttga ataataaagc cccaaaagcc acaccacaaa 360
a 361

<210> 396
<211> 329
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2753531T6

<220>
<221> unsure
<222> 166
<223> a, t, c, g, or other

<400> 396
cgatgccacg tgggccccag ctcacccggg tggaggctgg gagctgaaac cgaacccagg 60
caggagatgg gcgacggcgg aggtgcaagg cagggcacgg cgcacaagac gagggcggcc 120
gggcggggtg gattagaggt cactctcgcc gtacagcgcc gtgganaagg acatgtagtc 180
cagagcacct ggcacggagt cggggccggt gtaggggggcc atccgcgcga tgcagtactc 240
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agagtggtca agaaggccgc aaagtccag 329

<210> 397
<211> 217
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2875779F6

<220>
<221> unsure
<222> 214
<223> a, t, c, g, or other

<400> 397
cgggggccgg acgaggacga agaggaaacg gcggcggcgc ccgggagtcg ttgaagccct 60
ccgcgctggg ggccgccagg aaccattctc cccaagccca gaggcaggac ttcgcagcag 120
gatggggtgg agagcccgcg ggagtgaccc ccacgagagt gaacgccccc cacactccca 180
ccatcgccgg ctggccccgg agcgggaggc ccgnagc 217

<210> 398
<211> 131
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 042222H1

<220>
<221> unsure
<222> 12, 22, 45, 50, 60, 77, 104, 106, 110, 117, 126
<223> a, t, c, g, or other

<400> 398
ctgaataaac anggagggat gnttctaacc cgtgcaatgt ctggnaacan taaacttggn 60
ggacaggact tcaatcngag attgcttcag tacttatgta aacngntctn tcaaacntat 120
ggcttngtgc c 131

<210> 399
<211> 285
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 088219H1

<220>
<221> unsure
<222> 112, 117, 133, 240, 260
<223> a, t, c, g, or other

<400> 399
gtttctcaca gatcccaaat tggccatgga agtttatttt ggcccttgta gtccctacca 60
gtttaggctg gtgggccagg gcagtggcca ggagccagaa atgccatact gncccantgg 120
gaccggtcgt tgnaacccat gcagacacga gtggtcggga gacttcagaa gccttgcttc 180
tttttccatt ggctgaagct ctttgcaatt cctattctgt taatcgctgt tttccttgtn 240
ttgacctaat catcattttn tctaggattt ctgaaagtta ctgac 285

<210> 400
<211> 512
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 149812T6

<400> 400
tgaataccct tatcatattg ctttaaatga cagaaagatt aaagctggca tcctctatag 60
tatactaagc atgaatgtaa agtatgagaa taaataggag actttcctaa atgtcaaatt 120
acaaaaccgc tcaaaacttt gtaattgtga ctcatgcaaa taccttgtta ggtcaactta 180
atattacaaa tactgcatca gctcggtacc tttatatccc ttttcataaa aaagaaattc 240
tcactccact cctgaagcca gcaaacagct ctggaggaat tacctgtaca cccaagtgcc 300
acggtcactc tggaatttta atacacacac acacacaccc ttactcatga acatacacat 360
tttacaaaca cacaatggtg tacacacaca cacacacaca tccacacaca ccccatcttt 420
aggatttgta gctgattcca agcctgcact tatttctatt ctatattttt ctttgtatca 480
tcctgaaaca cactggttgc tcagcaaaaa ta 512

<210> 401
<211> 592
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 182514T6

<220>
<221> unsure
<222> 320, 352, 426, 428
<223> a, t, c, g, or other

<400> 401
tattaaggtt ccttaaaaaa ataacttatc tttaaagccc tttctctctt gccctctttg 60
atatttaagg tatacaggat ggtgaggggt gtgccaggac agtaaggcag ggggctacag 120
tgggcagagt agctagggga gtcaggcgga caagggtttc agtcctgctt ctacagggca 180
agctatttat cctctctgaa ggtttctgta cctgagaaat gggcacttcc atgcccacct 240
ctcaaggata ctgtgaggag ccttgcccag agcctggtca tggtaggagc atgtcagttc 300
atccgcctaa agaaacagan tccagggcct taggctggct caaggggcag angaaaagac 360
aatggcaata agaacctctg gagcttaaac caaaccactg atgccaggga gccagccagc 420
cacccntncc tgctgcagtg tgtgacggga cacacagatg cccctgcgcc cggctcctct 480
ctatggaggt ttaagcatct cttgagcagt tacacatcac ttgccccttc ctctcacctt 540

ccccatctg tgggatattg gtgcaggatt gtggcatctg tgcacgtgaa tc 592

<210> 402
<211> 550
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 492443T6

<400> 402
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gagattctat atccccattt actcatggtt ttttcaaggt gaatgaaaca acataccctg 120
ctttcaatat tttctccaaa tgcaaagcaa aaacagaaca aaaaactttg aaactttaaa 180
tcttctttca aacaatccaa tcacatttac agaagtgtcc aaaaagagat gatggataat 240
atcagtgcca gcactatgtc atacagcaac ttcctcatat tctttgacgg tttgtaaata 300
attttccata tcaccaaaag ttacaaaagg ttccacagtt tcctttagca agctgaagct 360
tactcttcat ttgtcaatgt gcataaaagc tgcttatagc atagcatggc gtaagtattt 420
tttaagcaat aaatggtttg agtcatctat tttgtcctga aatgctatct gtagttaact 480
gcactgctta taaatggtca tagtaaattc agcatgaaag tggatattac agaaaagacc 540
agcaagcaga 550

<210> 403
<211> 439
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 516262T6

<220>
<221> unsure
<222> 29, 49, 75, 81, 85, 96, 115-116, 143, 154-155, 195, 330, 355, 365, 400,
426
<223> a, t, c, g, or other

<400> 403
acaacacgcc cagacacaca gcatagcang gcctcgataa tgagataant tccccccacg 60
tcttgagaag aagantacta ngtcnttctt tatgancact attaaaaaaa aatannnccc 120
tcacaacatt ctccgggacc tanagcccaa gagnncccac tgaagatcca tcatctgtgg 180
gatggcggag gcagnctctg gggagcagga gggaatgtgc acagccagcg gaggctgcag 240
cagccttgcc tctgccgtga atgtcaggca gtgacaagca gcaataaggg aacagagggg 300
gtggcagcag tgtttggcag ctcttcagcn atcttaatca taaattcggg taggntccag 360
ttggnggcat tgccgggggg gcacagaggt tgtagcagcn ttcacctcct tgggggtagg 420
agactnccct ctgtttgga 439

<210> 404
<211> 505
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 567292T6

<400> 404
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taaagtaatt tacagttagc ttttaaccct ctcgggacat ttagatacat cctgataatc 120
catcttgtat tagtgtgtgt caattttaca atacactggg gaaaactcag ctattgtatt 180
taacggtaca gtttcattta tcaagtgttt cccattaatt ccattattag tgacagctaa 240
caagtgaccc catcaaatga agtgaatgac attagactgt ggcagagtaa accacatctg 300
gattgctttc tataattcac cagtttgcag gaagtaaaca ttctttgatt tgttcataat 360
atactgaagt tacctataac actggtgcag taacacagct agttcctctg tattgttatg 420
gtagaacggg attttgtaat ataaagttaa cagggaaaaa atgctcacac attatgtggg 480
tgaactttat ctcaccaaaa gagct 505

<210> 405
<211> 511
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 927392T6

<400> 405
caccaactag gtcacaggga atgttaatta aggcaagata ggtagaagga aaggagggta 60
tgtacagcaa ttgctcctct ttacggagaa gagaacctgc cacagaacaa gatgcagttg 120
gttttgtggt gcctgatgaa gaaaagaaaa gggtggtctg cacagaatct tggctccatt 180
ctgctgcacc gggaattcct gaccacagca gtggctgcgg cagcctctgt gccttcctca 240
ttgacctcca cgaagcactt gtgggcaacc ttggacagag gcacattctt ctcagttgac 300
attccagaaa agtctgcctt ggcttcgtca aaagcatcga tcattcctaa tcttcgaagg 360
aaaggctcca agtcataact ctcctccagc tttaatctgg gaaggaaaac ttgaacctta 420
ctttttgtca acttttctga atttgtccag gctttgaatt tctcatatgt aagtgctttt 480
tccaccacgg cgaaggtccg tgttgtcatc g 511

<210> 406
<211> 335
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 936419T6

<220>
<221> unsure
<222> 144-145
<223> a, t, c, g, or other

<400> 406
ataaaggaaa acaaaaaaca aaaaaacaaa aacaaaacaa aaaaaactta aggtatgttt 60
cctgcaagca aaatggagaa aaaggtatta ttgttgttac tatgattatt aagccacaga 120
cacataaaat ccacaaaatg gatnnccggc tttagaaatg caataccgta tcaaaggtgc 180
agactgtttc aaatgttctc tacatattgg gctgaaacaa gaaccaaacc aaacttcaac 240
cccatcagcg acgcaatgct cctgtgacct tggtgaaaac atcgtcgtga ccagctagat 300
ccaggaatcc ttctctagag acacgtggaa acgtc 335

<210> 407
<211> 347
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1268604T6

<400> 407
atggtctcat cccttctttt catagttcct tcctcttcct catcctctgc attgatcacc 60
atggtgccca gttgtgatgg caacgtgtca tcgtgctcaa tcatagtatt ggctccatca 120
gtcatggtgc tggctactcg gacagtgccc atctcatcac ccactgctcg aaccatcgtg 180
ccagaatcca tttcatcctc ttctgagttt tcttcatcgt cctggtccac ttcccgctgc 240
tgggattcct ggcgtttcag tttcacatcc atggcttcat taattaagtc tcgcagtatt 300
gacactcctt tggcactcct gacaaatggg tgctgcagga gctgagt 347

<210> 408
<211> 227
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1290504F6

<220>
<221> unsure
<222> 101
<223> a, t, c, g, or other

<400> 408
ggcttcggga gcgcccgggc tgatccgagc cgagcgggcc gtatctcctt gtcggcgccg 60
ctgattcccg gctctgcgga ggcctctagg cagccgcgca nttccgtgtt tgctgcgccc 120
gcactgcgat ttacaaccct gaagaatctc cctatcccta ttttgtcccc ctgcagtaat 180
aaatcccatt atggagatct cgaaacttta taaagggata tagtttg 227

<210> 409
<211> 336
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1314775F6

<220>
<221> unsure
<222> 23, 77, 144, 155, 157, 164-165, 177, 184, 297, 304, 315
<223> a, t, c, g, or other

<400> 409
ccgcagcccc tttctcttcc ggntctaggc gcttcgggag ccgcggctta tggtgcagac 60
atggccaagt ccaagancca caccacacac aaccagtccc gaaaatggca cagaaatggt 120
atcaagaaac cccgatcaca aagntacgaa tctcntnagg gggnngaccc caagttnctg 180
aggnacatgc gctttgccaa gaagcacaac aaaaagggcc taaagaagat tcaggccaac 240
aatgccaagg ccatgagtgc acgtgccgag gctatcaagg ccctcgtaaa gcccaangag 300
gttnagccca agatnccaaa gggtgtcagc cgcaag 336

<210> 410
<211> 438
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1347582T6

<220>
<221> unsure
<222> 360, 410
<223> a, t, c, g, or other

<400> 410
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ttttattata gcatctacag tgtctggaaa aggatgtaac aataaataac tgtagacgca 120
tcacgagaca tccatttact taatcacaga agtggatctt gctacatagt tttctcaatg 180
tcttcattct tcagattctc caggcttacg aatgtcatca atcttcaaaa tcattctaac 240
catttgtgtt gcaagagata tctgttgctt tttgccaatc aaggtttcta tgacatgctg 300
ttgcttcata tcatttgtcc ccttgtgcaa acagtcgatg ccaagagcag ggttcatctn 360
cttcacctgt ctggctcgga cttcggtcat agtctggatg gggattcatn gccactggtt 420
ttcagagaag ggccatgg 438

<210> 411
<211> 162
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1395143T6

<400> 411
gctggggcct aatgttctca cataacagta gaaaaccaaa atttgttgtc atctcttcaa 60
agaatcgaga attgcgtaca aaaaaacctt acataaatta agaatgaata catttacagg 120
cgtaaatgca aaccgcttcc aactcaaagc aagtaacagc cc 162

<210> 412
<211> 349
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1507333T6

<220>
<221> unsure
<222> 295
<223> a, t, c, g, or other

<400> 412
aaaattgctg ggtttagctc tcagcagccc gctcctgagc tctgaggaag cttgccttct 60
tttgagctac ccgatccttc ttctgagcaa gggacatttt gggacggttc cacctcttct 120
ttttaacttc tttcttgggc ttcttttcat agactggatt ctctcgtata gcagcatgag 180

ctttcttata catctcctcc atcatgtctg gagttacgct gttctttatg tattgagaga 240
actgtttctt gtaagcatct tcatcttctt ccattaagta gcgcatgtaa tctgnaacat 300
tctgggccat gatgtgcttc cgatgtactt ctgcattaaa ttccttgct 349

<210> 413
<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1517479T6

<400> 413
gtaataaaat aaatttaagt ggcacctaat ttaacattta aaatagttca ttaaaagata 60
atctacaaaa caatgttatg cctaattgtc aaaataacac ctttttttt tcaagaaagg 120
agaaataaag gcataatcaa aattatggct aacaacgtgg gttcattttg acacttacag 180
atgattctgt aggcatatcg gcaggcacga tgttgaaaac caatccacta gatttaaaat 240
taatggtaag ataaaaaaga aaagatacac atttcagagg taatgtttga aattaaagaa 300
aaatatccac catatattac aacagatctt ttaatgacta tttttaacat aaagattgtt 360
gttttgggaa acatctattc tctttgaaca tttcactaaa ttttcaatgt attaaataac 420
tgacagaaat aagttctgtg ttctgtacaa attaaaggtc ccatggaata cataaccccc 480
tcccagcccc accaaagctc aattttgcat ggtttcagca gaaa 524

<210> 414
<211> 302
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1701950T6

<220>
<221> unsure
<222> 98-189, 240, 246, 263, 279
<223> a, t, c, g, or other

<400> 414
aaagataagg aagttgggtg tgatgtttac ttctctatga tgatgcttct caaactttca 60
tgtgcataca actcctttgg atctcatcaa aatgtccnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnt ggagtacaac acaaagaggg ttcaccctgg cctttcctgg gtcatgagan 240
gccttnttca gcgttatctg gcntctccca agcacaatnc ccaagcaaaa aggtttcgat 300
gc 302

<210> 415
<211> 559
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1730294T6

<220>

<221> unsure
<222> 522
<223> a, t, c, g, or other

<400> 415
gcagggaagg gtcatggctg gagggtaggt ccaggtggtc cgggctctgt gtctggtggt 60
agggtgggct ctggaggtgc agacccgggg gctgcctagt gttcgggaac gcagcttccc 120
gtctgcaggg gcgtgaaaat gtcctcctcc gagagtccct tgcgctgcac caatttctta 180
aattcttcca gggcctcccg gttggtatca gaattcctac ccacaagctt tcccatgtgg 240
agcaggcccc catggtgctg gtctttgcag taaaagatgt agtggtccct cctgggcagc 300
tcctgcaggt acatgagctt cctgccccca taggcgctgt atttgccagg ctcctccgtc 360
ttccgcatca ggattttctt ctggatgcac cgatcctccc tcatgaaggt gaacgtggct 420
tccaacttcc caccgcccag ggctgtcacc ttcactgggg acaccttcct gggcctcctg 480
tcctccggaa agtccttatc gaccaccatg gccttcacgt ancaggtcct gtgatatcct 540
cctcctccaa gggtgaagg 559

<210> 416
<211> 529
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1730609T6

<220>
<221> unsure
<222> 97, 244
<223> a, t, c, g, or other

<400> 416
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taaaaacctt ccccgctgtc atttccacag atgggganggg ttttcaggca gccctccccc 120
ctccccccat agagctacat gcttcattcc aggacgtctt gcttccccac atgctgcggt 180
gctttcctac cagggtagag ttccaaactc caagactgaa gtacacaaag agggggtggg 240
tgtnggatgc agagtgtgtg gcctgatgct ccacggcgtg caggacgggg ggctaatagt 300
aggtttcctt ctccacccag ccgccagggc gtcgcctgat gatgagtttt ctgacttcgt 360
catatacgaa gatgagaaga gagtagggga aggcacagaa ccaccaggta ggtttgaggg 420
gatacatcct aagagcaaca cccattccag ggcagtagga aaggaaagca gccaggggtg 480
tctcttcaaa gaggccaaat attcaagatc ttgttcttca tcccctgct 529

<210> 417
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1752762T6

<400> 417
tacagtagaa atgcagacca ctttggatag ctatggctcg atacttctgg gtgccctcct 60
cctaagacat cctcttctta cattccactg aacagaaaac catcccttct actggcatga 120
acttctgccc aatgaggcat ttgctgcagc aagagcacag aaagcactct gtggatgcat 180
gccagctgaa attgttatag gtcacccgct gcacttctgg gtcgatggca ttgtggcatc 240
cttgacacac cacagcgtga ttcttcacat agcagggctt gcacacgggc ttgtcattga 300

ccatcacgta tatctcccca gctagaatgc tatcacagtc aaagcagcag aagtgtttca 360
ggtgccaatt ctggttttct gcctgggtat actcattgct gaatatcagc tcgtcacagc 420
cagcacatcg ggggttctcg ctggtcacag taatgtctgc cacagtatag ttctcattct 480
tccaaaaata aatcatgtca aacc 504

<210> 418
<211> 557
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1760583T6

<400> 418
tataatacat tggtcgtcaa tttttatttc cacatggtta cacaggctga atgactagct 60
cacaatccca ggaggtatta taagttttgc tcttcaaaaa atggtgttac tgttgtaagg 120
ggaaaagtcc tcaatgacaa agaaatgaca ctaatgaaaa caaaatcaag aacgatccac 180
tggtactgca ggttacagag aagctgtcag tgagcagttc cccacctctc gcaagcaaag 240
gggatcaagg gctaaaaata ccttagaaaa atcaaacagc acctgcaaca catgcttata 300
taaaggccaa acttgcaaat tcttccttct cgtccatgct gcccaaatgt gaaggaatta 360
catataaggc taaaatctgg cgaatcttct cacttcttcc tcttctttgt ggaatataat 420
ttttctgcga gtgggactgg gacaatccct tcacattctt ttagttcctg ggtcagaggg 480
tgtttgacaa tattcccctc taatcacatc tatatctcga gacaaggtgc tccaccatgc 540
tttcaacagc tgcggtg 557

<210> 419
<211> 587
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1888251T6

<220>
<221> unsure
<222> 415, 542
<223> a, t, c, g, or other

<400> 419
agagtttaaa taagtcctgg gtgtctggtg ccaaggtgag ggaagggttg ggcagagaga 60
tgaggggcag catcagtgca gctggcaggc agaacccaaa ttctgcaggc ccaggacagt 120
gggctcccct ttctctgggg aacagggagg gcctgtgtct ggccaggctg aggttccaga 180
tctgttgcca tcatggcccc ttcagggtcc tgggaaattc ctggcttctc ctaaatcagg 240
gtgaactggg cctccaggat caggtctgga gcaggcccaa atatagtcct ggatctgcct 300
ggattaggtg ccaatgtctg agtctgggtt ccagatcaac tccagacccc aggctggatc 360
tggccccatt tgagttctga ttccccttgg agctgggctc tgggccctgg gccancatct 420
atccttgtgt ggcatctgtc ctgagctggt cctggggcac catgcatagt tagtgttctt 480
tgttggccca ccagggtggg gctgtccaga actgccaggt cttaactccc caagttccag 540
gntcttaact gggggcttct tttggatctc tggcaaggct gaggaca 587

<210> 420
<211> 62
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2061030T6

<400> 420
aatggcagcg gtcttcatag gacagaggag tgagttctgt caacagacag gcggccccta 60
ct 62

<210> 421
<211> 287
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2070387T6

<220>
<221> unsure
<222> 234
<223> a, t, c, g, or other

<400> 421
aggactttct gcttaaaata tttaaaattt acatgtgcac acaaacaaac acaggttccc 60
ccacccatgg ggaagggcga gatgactctg aataaaggat ggaggagaag aagagggtgt 120
agacggaggg cccttgaccc ctacaggggc agcaggataa ggaatagaat ggggcagaag 180
gtgggttatt aagaagcatc ttgcttactg acatgaagcc acgtgcccag cganagcaca 240
gatgaggcct cattggcgta gaggaggccc ttggaagggc aggcaca 287

<210> 422
<211> 604
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2107288T6

<220>
<221> unsure
<222> 578, 584
<223> a, t, c, g, or other

<400> 422
ttacaaaaga gcattacatt ctgcacactg ctctgaacag atgccaggga catgtggact 60
attgttactt ttcctccctg tcccaccccc caaatgttac agtgaccaca aagcaaggtg 120
ttcacaataa ttacatgggg ggaatttttt aaaccaccaa caataacgaa aaataaaatc 180
cactcactct gctgctgttt caaaatttca atgttagttt ttgcacgccc ttcccccccc 240
caaccctgtt tgtaaggaac taaaacatta catctggtga acagcaaaga tttcactaca 300
cctcaaatgc agaacaccta tgaagcagag gaatgttggc tttttaaaca gaagcagata 360
aaaaaaaaaa gatgcaggac tccttcagtt cttcactagt cttagaaaaa ctttccagaa 420
tactgcttca cactgttctg cagcaaatac tgtgcattct gtatctggtc ctgtgttcct 480
gtaatggtaa tgatccgatc ttcggatcct tctaaaggct catcaatttt gatcgaagct 540
cccgactcat gacgggattt gtttaatccg ctgaccanct ttgncaataa tagatccagc 600
caaa 604

<210> 423
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2176305F6

<400> 423
tctaagatgg cgactgtcga accggaaacc acccctactc ctaatccccc gactacagaa 60
gaggagaaaa cggaatctaa tcaggaggtt gctaacccag aacactatat taaacatccc 120
ctacagaaca gatgggcact ctggtttttt aaaaatgata aaagcaaaac ttggcaagca 180
aacctgcggc tgatctccaa gtttgatact gttgaagact tttgggctct gtacaaccat 240
atccagttgt ctagtaattt aatgcctggc tgtgactact cacttttaa ggatggtatt 300
gagcctatgt gggaagatga ggaaaaacaa acggggagga cgatggctaa ttacattgaa 360
caaacagcag agacgaatga tctcgatcgc ttttggctag agacacttct gtgccttatt 420
gggagaatct ttttgatgac tacagtgatg atgtatgt 458

<210> 424
<211> 585
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2198796T6

<220>
<221> unsure
<222> 561
<223> a, t, c, g, or other

<400> 424
attaacatgt aaactcacat gtacaatttt acttttttgtc atatatttaa atattttctt 60
atctgcagag ctatctcagg atatgaaatc ataacatgct agcaactagt aatttaacat 120
taaaacactt ccctaaatta ttccatggaa aagtgcattt acaatataaa catgtcatat 180
atgaagctac aaatcataat ctcactggag tggatataaa atttcaaatt cagtccaaat 240
gagtcaaaga aaaaagtgct aacagagcaa atctgaaaca agttcatggg gattgggtaa 300
tgagtcatcg aaacgaaatc ttttggaaac catgctgcta tcctctggga tattctcttt 360
gtcttctcta tcaccacagg ttccattaca ggaggattta gaagtcttgt cttcagagga 420
ccttacagaa tgatcctgag tttgagagga actggaagtt tcttcagggt gaaacaagtt 480
ttcaaagtcc cactgctgta gccaagaatg agaaaggcat atctctgctg ttgggtcttt 540
tctctgggat tttttactaa naggctctga ataaagtctg tgggg 585

<210> 425
<211> 347
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2345762T6

<220>
<221> unsure

<222> 120, 305, 331
<223> a, t, c, g, or other

<400> 425
acaaaaaagc caggaacacc ctacccaacc cagcccagtg taacaggtta gccattaaca 60
cagaataaag aaggtcccag ccacacacgt cattactcgg cagagggtgt ccagcctggn 120
cggccgacgt cacagtggat ggccctgcgt ggctgggaca cagacaggga gcaggcatgg 180
caacctgcgc cacgcagaag cagcaaggct gagcatgacc actggaaata aataaacatg 240
gtgccgacag catctttaaa ttagtaagac gttagcacaa aaacaaaaaa gcacaacgac 300
tgaanatgca cttgcttgtt gtggtgggtt ntgcttgaaa acacctg 347

<210> 426
<211> 538
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2447063T6

<400> 426
ctttacaaac tatgtttttg caatatattt gttacaacac acatttcctt atgaatgtat 60
ttgttaaatc tttttgcaga ggaagtaggg aaaagtgagg ggagaagagg aggaataaga 120
ttttagaact aatcgtcagc aatgggccta ggtatttggc aattatttcc tttacaaaaa 180
aattacaggt ttgtaacttc aaacatcaaa agtgtagtgc atcaatttaa ctaaaaaatc 240
agtagtgcct aatatattat ctgggcatca aatttctttt tttaaatata tccagattca 300
catattttta ctcttattaa ataatggttt taaataataa tcatcacaat gtttagctac 360
ataatcccag atctggatta aatcatggtg atatcgatat ttttaaattc caatttattt 420
gttaatcagt aaaatgtaat aggtgatagt gtgtccagag atgagcctcc tatgtgtgga 480
agacgtagtc ttattacacc tgctatcaat taggtcttta catagctgct aatgtatc 538

<210> 427
<211> 365
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2492212T6

<220>
<221> unsure
<222> 9, 87, 328, 330
<223> a, t, c, g, or other

<400> 427
ccccaaatnt gatgaaaaca aagttttata taccatataa acaagatttg tcagatttga 60
aagtgaaagt taaagtaatt tacagtnagc ttttaaccct ctcgggacat ttagatacat 120
cctgataatc catcttgtat tagtgtgtgt caattttaca atacactggg gaaaactcag 180
ctattgtatt taacggtaca gtttcattta tcaagtgttt cccattaatt ccattattag 240
tgacagctaa caagtgaccc catcaaatga agtgaatgac attagactgt ggcagagtaa 300
accacatctg gattgctttc tataattnan cagtttgcag gaagtaaaca ttctttgatt 360
tgttc 365

<210> 428
<211> 305

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2542309T6

<400> 428
ttatgaaaaa atttttagtg cttaaaattt tacgatccat accatatctg ccatagtaaa 60
aattcatttt taacacagct aagatgataa ctcatagata ccacagtaac ttttttgtag 120
gtatttaaga aaaccatttc ttccttcttt ctccagccta atttctatga aaatattagt 180
gtctaatatt ttacatgacc cagcacacct tagtaaatgt aaacattcta aatgatttaa 240
tagcaagctt tgaaagttca gattttaaag tgctcatgaa attctcaagt ggttttgtaa 300
aagtt 305

<210> 429
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2807227T6

<220>
<221> unsure
<222> 25-26, 68, 100, 107, 194-195, 200, 248, 278, 326, 347, 356, 363,
376-377, 379, 384
<223> a, t, c, g, or other

<400> 429
gcaaatcacc gcgatcccag attannccag ccggccgggt gcctccctcc cgtccgcctg 60
ggcagttnag gccaatcagc agtttaggcg cacaggtgcn ggctcanaaa gcagcagcaa 120
tctccggtgt gttctggaat cagaagttta ggtccacgtc tgattagttc ccttcgtttc 180
attagacttg gctnnatgtn tgccagtccc actagagctt cgatttcaga cttcctatga 240
caggtttntt cacagaaaac tctggccacc aggatgcncg ctccaacacc ttgctttcct 300
gcaggacagc gccccagagg tttttntaga gctcgccgtc ggtctgncaa tcggtnagtc 360
canaacaaag tcacgnngng cgtnacgtc 389

<210> 430
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2878786F6

<220>
<221> unsure
<222> 259, 507
<223> a, t, c, g, or other

<400> 430
gcttcatatg atgttgtgag gaatgacata gatttcttta gaaatattaa atttaactac 60
tgcattcttg atgaaggcca tgtcatcaaa aatggaaaaa caaagttgtc aaaagcagta 120

aaacaactga ctgctaatta taggattatt ctttctggaa caccaatcca gaacaacgtt 180
ttggagctgt ggtcattatt tgatttcctc atgccaggat ttttgggtac tgaacgccag 240
tttgctgctc gatatggtna acctatatta gcaagtaagg atgctcgaag ctccagtcga 300
gagcaagaag caggtgttct tgctatggat gcgctgcacc gccaagtact accgtttctt 360
ttgagaagaa tgaaagaaga tgttttgcag gatcttccac ctaaaattat tcaagactat 420
tattggactc ttagtcctct ccagggtcag ctcttatgaa gattttgcta agtctcgtgg 480
ccagtgtgat gttgatggaa cagttcntca gctacacttt c 521

<210> 431
<211> 242
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2926914H1

<400> 431
ggccgtacca ctggcatcgt gatggactcc ggtgacgggg tcacccacac tgtgcccatc 60
tacgaggggt atgccctccc ccatgccatc ctgcgtctgg acctggctgg ccgggacctg 120
actgactacc tcatgaagat ctcaccgagc gcggctacag ttcaccacca cggccgagcg 180
ggaaatcgtg cgtgacatta aggagaagct gtgtacgtcg ccctggattc gagcaagaga 240
tg 242

<210> 432
<211> 338
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3141751T6

<220>
<221> unsure
<222> 140, 180, 190, 289, 292, 320
<223> a, t, c, g, or other

<400> 432
tcaacattaa tcaagaaatt cctccatctg caaaagtcag cctatgccat taaatacagc 60
caagatcata aaatacaaat gtcattaggt ctactgaatc ttgagattca ttcactagaa 120
tacacaggga aaaggaaaan gtttgccctt gtgaaaggtg tgtatcattt tttagaagan 180
cttctgaaan tctcaaacat ctgtgagtgt gctaagagcc gttacaaagg tattttatac 240
aatctatgct gagtcagcta ggagttagca ggaggctgga tgcagatgnt anaacatacc 300
cctgcagatc tgttgttatn aagggatgac ctttggaa 338

<210> 433
<211> 320
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3537363T6

<400> 433

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tggcagcttc ctcctcctcc agctgttctt caaggtccag catctgctgg gccatcttct 120
tcctttcagc ctgtagctgc tggcccctgt cttcctcctc ctccaggcgg gcctccatct 180
catgcagtat ctcctccagc tcctgcttct tggccgccag ccgcacccgc atctcctcag 240
cctctgcata cagctctgtc tctgcctgca gctgttcctg tagcaggttc ttctcctcgg 300
gtcagctgcg agtgcttctg 320

<210> 434
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3967402T6

<220>
<221> unsure
<222> 111-112, 185, 193, 196, 251-252, 257, 278-279, 283, 307, 338, 363
<223> a, t, c, g, or other

<400> 434
ccacagttca atcccctagc ctatacgatg ctctttcccc tggccatcat ctttccctcc 60
ctgtcaccta cacagtcaac ctgtcccaaa ccttggccca cttcatcctg nncttctgcg 120
gtcacagctg cctgctgggt gggagtccgg gggaatggta tgtgtggtca ccagagggca 180
ctgantgggc ttnagnggca tgtgaatcct ggcagagtct cggatccccg atggggagag 240
gagaaagcag nngccangac aacgagtggg ggaaggannng ccnggctaag tgacgggtgg 300
ggggtcnggg ttgtaactcc agtgtacaca ttgacagnct ctatattggc ttcaccagcg 360
ctnctctgtt tgtctcgtcc ctggat 386

<210> 435
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1218810R6

<400> 435
cgcttgggag aaggccggaa gcttaccagc cgagaaggaa ttcctagcta gcttcagagc 60
cgggtaggtt tgcctgggac cttgtaggcc ggctgtgggg gactccccgg gtcgcacagc 120
cccattgttt gcatattgcc cgagcaggcc acggtggcct gcgcgcccca ggactcgcaa 180
gcagctccga tcggttggaa ctcggggcgg cggcagcagc gctgagccgg cctggatgag 240
gagatgcagc ttcctgcagg ggccaaggaa ggatctgggg acaaactgtc cggaactctg 300
ggccagggag gcgagaagga gagagagagg aagagccgag gcagatggag gactttggcc 360
acaactgcca tgtactcaag agtagaaccg agtgggtaat gggtcgcttt gctttttgt 419

<210> 436
<211> 514
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2747633T6

<400> 436
tacagcagat aaaatcagtg ttactgctct cagatgttaa ggttagcaac ctttctggca 60
tatgctaatt catcatgaac tcccaatagc tgaactgaat ggcttttaag tacagctata 120
aggtctcatg gtataattcc ttttgttgat gccagtgaca ggattttaaa agctacattc 180
cattaaaaat taaaaataca gcagcttttc caggggaact agatcccaaa attgtaccca 240
gaactcttgt ctaagatatt aagttaaata tcttgcatgt atatatcatt atagtaaatc 300
agtattcttg acaaccacag tgtaagaaat taaactttgg ctaattgttt tccccatcat 360
gaaatcagtc ttttgctgtc ttcataaata aattatgacc aaacattaca aatactttat 420
acatgtttac tgatttacag agaatattta ataatcagaa ctcaccagtt tcatagtatt 480
gtacattaaa ttataagcat ataaccactg ctac 514

<210> 437
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3119391T6

<220>
<221> unsure
<222> 401, 409-410, 415, 425-426, 434, 448, 450
<223> a, t, c, g, or other

<400> 437
tcagaggctc tgggtaatag cattcctgag attgatgaca tccattacct cactagtcca 60
acttctccag actaacgcag acttttctct tcccttggcc tttcctctcc tcgccattgg 120
gccaattcct tcgatttctc atttcccttg aagttagggc cattcacagt ttcatggtca 180
aagccagttc caggttcaat agtctgtgat ttatccaggc tctgaggtat gcaccgcttc 240
tgttttgctc gttcctccaa gagctagttt ggccagaaag gggatgcttt ataccataga 300
acacatccac cttctagaac ctgctctaga aggccaggcc ctcagattcc acatggttgg 360
agttctggcc aagtctggag ctttcttcac actcggctct nagagctcnn ggttnagaaa 420
aaacnnagca tggngagaga agacagtntn agaccgaggc ccctggagga cct 473

<210> 438
<211> 540
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2052083T6

<220>
<221> unsure
<222> 17, 28, 30, 233-235
<223> a, t, c, g, or other

<400> 438
attcagcagt acgaaanccc tccctggncn ctcccaccct ctcatggtcc acaactggta 60
gaaaggtcca gaaatccttg agctctggaa aggtccctgg tcagtccttg gggagctcag 120
atagctatat tggaagaacc tgctcaagta cggttcttga tgtctgggga atcctttcgg 180
ggaagatcac ttcaaactca ataatgaggt ccccacgttt ctcgggtgtt ttnnngaggg 240
ggaggccttc tccaggaact tttcgccgca tgccaggcct gataacatct ttgaatacga 300
cgggtatcgt cctgccgtcc agagtgggga cgttcactgt gcagccacac agagcctccc 360

ggaggctgat cctggcagga taaatgacat cagagccatc tctcttaaag atattgtggg 420
gcttgtcctt taaaacaaag acgatatcag ctggaatgtt gttggaggtc tggtctcctt 480
ccttggggaa agtgattttg gttcttcttt ccaacccttc ttcacttcga tggtcaatat 540

<210> 439
<211> 141
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2701222H1

<220>
<221> unsure
<222> 14, 124
<223> a, t, c, g, or other

<400> 439
ggctattgta aatnatggtg ctatgtacaa atatctatat tattgtattt acaagtataa 60
tgctgtaatg tacacacatc tttttgagat cctaccttca gttcttttga gtatatagcc 120
agangtggta ttactaaatc t 141

<210> 440
<211> 444
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 708939T7

<220>
<221> unsure
<222> 2, 189, 358
<223> a, t, c, g, or other

<400> 440
gngcagcatg aaacaccaag agccccactg ctttctgctt tagaagcagc tttggtgcag 60
aaaagattcc cgtttcccca ccgagttctg ttgtctctgt acacacaaga agccagaaga 120
tatttttttt tcagtgaact ttctcctgga agcaaaggag aagctatggg agatccaggc 180
atggttttng cttctggagg ctgtttttg gttactgggg tctcttcaaa gcaaaacggg 240
atcaggatga agaggggaa aggcatgggc cataaataaa taaggaaatt tgccccgatt 300
ctacaaatgc atctgatgga atgaggaggg tcaggctgtg agggattggg ggtagctnca 360
ggctgctgtt agggacacac ttgagctggt tcattccctg gagtgccccg caactgcgtc 420
tagggagagg caggcccaag caca 444

<210> 441
<211> 502
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1964291T6

<220>
<221> unsure
<222> 305, 396, 402, 417, 487
<223> a, t, c, g, or other

<400> 441
catattggct ctattaaaaa ctcaggtaat aaagcactaa gcttgatttt tgtattgcta 60
cagtctcttt cttctaaggg gaagaaaatc tccccaagaa taggatgcta cctgaggaat 120
tatgccgaat aaagaaaagg aatggatggt cggcagtgaa attttcttcg ggcatcaaca 180
tgcagaaagt tgcgatgcct gctgtggcag ctgccgcctc tgttccctct tcattcactt 240
ccacaaatga cttgtggaca atttttgata taaaaatatc tctggctcct gacatgccag 300
acagntcagc cttgctactg ttaaagagat cctgcacacc taggcgggcg aggtcggagt 360
tgagagtgta actctcttcc agtttgaacc tgggcnagct gncattaact tcaatgnaat 420
cgagattctc aggttagtcc actcatgcaa ctttttccaa agtcaactgt tcctcaatct 480
tcttcangcc cgtggactcg tc 502

<210> 442
<211> 579
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2455118T6

<400> 442
ccctttaatc agaaagtctg attaaattca atagtaactc aaactcttaa aaaatttctg 60
gaaaagtcaa caggatacat acatcacaga aaagcaggca gctgctgaca gttctttggt 120
ggaaaagtaa gttgcgtact tacccaagct gcccaaatga ttatcaagcc aagtttgttt 180
ttcaaaaata ggttttaaga tacaccaaag aaactataca atacaaaaat ttaacaatga 240
agttaaagta tatagcaaaa gccaaatatg acaacacaca tgtataatgt agaaaagaat 300
cctttcagtc ctagaaaact aaaatgggga gaacttactg aagggtaaca tacataaaat 360
gagtactaat agcaaggaat aatcctaaac attttcccaa taaactgact aagcctcaaa 420
aggacagctt aggaaaatga ttaacatgca gtttttcttt tttcctagcc aattcagttc 480
tacttagata aatctggttg ccaatcaata catatataaa ttaatttttt tctgctccaa 540
ttactaccat tttttctttt caccttttcc ctaattttc 579

<210> 443
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2839121F6

<400> 443
gtttttaaaa ctataaatgt tgtctttttt atatttttat gaaaaagcag tagaaaatta 60
cttttgaaga aaacaggcta tttaaatatt gaaatatatg tatgttgtga gtttaaggag 120
cctgtaattg tcagttttac aaaaccatct gtgttcaatg gttgtaaata aattctcaaa 180
acatcatttc aaaggctgcc tacagaatat tatcacttga cagatagagt taataaatta 240
ccaatcaggc acattttata atgtttgtct ctgtaaaggt aatattagca gttaaagaac 300
acggatgaga aaagaatgtg ttacataggt tgcatcactt gcagttaaat aaaactcaca 360
atttgtgctc acaagctt 378

<210> 444

<211> 569
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 356774T6

<220>
<221> unsure
<222> 481
<223> a, t, c, g, or other

<400> 444
gaaaaatata taaagccaaa agctcataat aaaattaaat catgatacaa ccaccacagg 60
caattaccat caaatacatt cccatgattt acaaatgtat cgcttataca gaggaagttg 120
caaaatcact gccagtacag acacatccag tctaattaac tatcgtctat tcatacaaca 180
gcaacaactg cagctcctga gaccacagaa ggacacagtg agcagctggt gactgagcca 240
gggtagcctc cgatcaataa ctgatcagag taatgagact tcgagaggaa tgcctataag 300
aaatctcaaa aggtatttgt ttgggtgcag aaacaaatgc accctccaca tttggatttt 360
ctctagaaga atctgtggcc aaatctctta tccaatggag gtactgagtg gctggatcag 420
ttaccatgca agctcacgat gaatgagatt gaatttggtt ctgtgtgcac actgggctct 480
ngggagggag gacacccctg tgtgttgctg ctgcttccgt gctgtctact gtatccttca 540
tgtgtctcca aatgggacat gccccatgg 569

<210> 445
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 414523T6

<220>
<221> unsure
<222> 19, 53, 73, 77, 139, 141-144, 322
<223> a, t, c, g, or other

<400> 445
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accttcaaa gancaanacc cagtttgtca agaaaaattg cgtgccagtc ttttctggtg 120
ctgaatatgt atgttctgng nnnnttcctg gacactgctg gtaaatttag aaactcgttt 180
agaaaagcac ttctctcgta ttcaacagcc tataggctca tggcgcagaa tctaagggaa 240
aatggctaaa tccagcttgt gaattcgcgg gctgtgatga ttctttccaa gtaaataaaa 300
accctcggtt cgccccgacg anccacataa tctgttcaaa tccaacaagg aaccagattt 360
tggacgcaaa gaaggatacg ttctactcgc 390

<210> 446
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1359550F6

<220>
<221> unsure
<222> 26, 66, 186, 216-217, 241, 267, 310, 318, 387
<223> a, t, c, g, or other

<400> 446
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ctgcgngtgt ctcctcttgg cgaagactct cttcctcgcc ggttatacac aagactgaca 120
acaagatggg ctgcgccatc atcgcgggct tcctgcacta ccttttcctt gcctgcttct 180
tctggntgct ggtggaggct gtgatactgt tcttgnnggt cagaaacctg aaggtggtga 240
nttacttcag ctctcgcaac atcaagntgc tgcacatctg tgcctttggt tatgggctgc 300
cgatgctggn ggtggtgntc tctgccagtg tgcagccaca gggctatgga atgcataatc 360
gctgctggct gaatacagag acagggntca tctggagttt cttgggggca gtttgcacag 420
ttatagtga 429

<210> 447
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1521513T6

<220>
<221> unsure
<222> 15, 66, 181, 183, 215, 221, 235, 255, 262, 271, 286, 289, 294, 302, 327, 333, 361
<223> a, t, c, g, or other

<400> 447
taacaaatac ttatnaagtc ctttgaagtt cagcgcacaa atttctcgtg tggggcggtg 60
ggtgtngcca tgttcttgct cttccttctt tacacatttg agttgtgcct tctgttctta 120
aagagatttt cctttgttca aaggatttat tcctaccatt tcacaaatcc gaaaataatt 180
nangaaacag gttacatcat tccaattttg ccttngggtt naagagtctc tcatngtggc 240
acagtcctcc agggnaacta tnttgttggg ntcccctaca tcccanaanc tcanagactt 300
tntcaaaagt gtgccgttca cccattncca ctnaccctcg acaacctggt ctgacagtcc 360
nataaaaaac tctctcattt taggtttctt 390

<210> 448
<211> 449
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1667912T6

<400> 448
aaaattccat agttatatac agtaacatca atttcaacaa cagcagtaca aagcacacat 60
ttgacttaca ggagcactga ttgccaaaga ataccaaagt gtttcacctt gatgatccat 120
gggaggaccc cacaacacta cagacaggta ggagggagaa caatgacatt ttgccgtgaa 180
cttagttgag ctcacaggaa aacaaaaaca aaaaacacat caccaggatt ttgcatttta 240
cattcactag gatgtatgac agatagagtt aaaacatcaa caacttaaat ataattaaat 300
acttttaag aaatattatg ctttaaatta tttaaaaata atctctttgt ggatgttata 360
ataaaataat gtcacactgc acctgggggga ggttggggaa aataaataag cttttcttca 420

agctctgact ctcagtccat gtatgaagg 449

<210> 449
<211> 204
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1694490H1

<400> 449
gtctggaggt gtccaggctg tggggaccac attgctccaa gccagatatg gtacaggact 60
gtcaacgaaa cctggcacgg ctcttgcttc cggtgttcag aatgccagga ttccctcacc 120
aactggtact atgagaagga tgggaagctc tactgcccca aggactactg ggggaagttt 180
ggggagttct gtcatgggtg ctcc 204

<210> 450
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1818802T6

<220>
<221> unsure
<222> 445
<223> a, t, c, g, or other

<400> 450
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atgtttagta tttaattgga aatgaatcca gtataacatg acttccacag atacagcatt 120
cccatcctca ctcccattcc tattttgaga aattttaaaa atacagaaaa gtacaaaaaa 180
taagacaaga tatccctata ccacaatcca gaatcaatca gtatcttctt atatttactt 240
gaagtctttt gaaagagaag tggatgttta tataaaaagc tgaagtcccc tttaaccaat 300
acccatccca cctcccacac tcattatttt cccttctcca ctcttcacag gtgaccacta 360
tcaagagttt ggtctgtatc ttccaatccg gttcaaaaac atgtacatac atatatgcat 420
ccattaccaa tagatagtac tgagntttat gaggaacttt taattccaat ttacaaaaaa 480
gtcattgtac tatctgtatc attctgcaac ttgattcccc c 521

<210> 451
<211> 75
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1855389F6

<400> 451
ctcctgaagc cagcgagacc acaagcccac tgggaggaac gaacaactcc aggcgcgcaa 60
tgaacaactc caggc 75

<210> 452

<211> 442
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1905291F6

<400> 452
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attttgttaa tataaatctc tgtgaaaaat caaggagttt taatattttc agaagtgcat 180
ccacctttca gggctttaag ttagtattac tcaagattat gaacaaatag cacttaggtt 240
acctgaaaga gttactacaa ccccaaagag ttgtgttcta agtagtatct tggtaattca 300
gagagatact catcctacct gaatataaac tgagataaat ccagtaaaga aagtgtagta 360
aattctacat aagagtctat ccattgattt ctttttgtgg taaaaatctt aggtccatgt 420
ggaaggaaat ttccatggtg ga 442

<210> 453
<211> 606
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1968621T6

<220>
<221> unsure
<222> 504, 598
<223> a, t, c, g, or other

<400> 453
gcactcagca ggatggctct agagatccgg cctcccccag tctctaaact gcttttcagt 60
taatttttctg tctctttgcc tgctgtatat gagtaatgag actgtttttc ttggtaggtt 120
ctcgcatact ctccaggatg tttgggtttt tagagacacc tggtcctcag ctggggacaa 180
tggccatggc tcattacctg gccttcaggg ttcaagcagg ggacatatac ccctaaataa 240
cctaaagggg atccatcaca ctacaaccac cacctccacc gccatcatca agaagccact 300
ggctgactga gatacacttc caggaggaca agacagagtg gatgctggaa agacagggca 360
ggggaccatc accagggaaa gacttcattc ttggaaggac atcgaaccgg gggcaggtcg 420
gtagtggagc cgctgtttct tctgctgtat ccaaaagttc taactcttcg gctttctgca 480
ttttcagctc tttcttttcc tggncttctc attgctggtt cctgcacacc tcccctctat 540
tcctcccccc aatatattcg ttagtctaaa ggaaatttct tcttcctatt ccccacantc 600
tccagt 606

<210> 454
<211> 169
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 522294T6

<220>
<221> unsure

<222> 109, 122
<223> a, t, c, g, or other

<400> 454
ttattttact gtgtacgccc aggatccagg caatctttcc agacacatct acttcccagt 60
aatatttccc cgaagagaaa tattggcagc cgaagacacc aaaagcagna aaatcacatg 120
gntttgaatt cttaaatgtg caggtgcgta cagtttcact gtctctgat 169

<210> 455
<211> 323
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2469208T6

<400> 455
atatactgtt ttaatggata caaaaataaa tattcattca gcatattaaa gatatgtgct 60
ttgacattca tttgaattgg agattcaagc ctattgttat cttatgaaca cttcagcaaa 120
caggactgcc attcttaaaa atataatgct ttgttggaca aaagggacaa gccacgtccc 180
ctggtcctct cctctattcg cctgtgaact ccatccacac gtaaaggacc tctgggtctg 240
actgtcccct ccacaggcat ggtgctggga aaaggaaaca ggcatatctg gctttcagat 300
tttaaaccgg aaactctcac agt 323

<210> 456
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2642654F6

<220>
<221> unsure
<222> 445
<223> a, t, c, g, or other

<400> 456
tttttctgcc tccaaaaggc tgggaatggg aaggagagtg gatagttgat cctgaaagaa 60
gcttgctgac tgaggcagat gcaggtcaca cggagttcac tgatgaagtc tatcagaacg 120
agagccgcta ccccgggggc gactggaagc cggccgagga cacctacacg gatgcgaacg 180
gcgataaagc agcatcaccc agcgagttga cttgtcctcc aggttgggaa tgggaagatg 240
atgcatggtc ttatgacata aatcgagcgg tggatgagaa aggctgggaa tatggaatca 300
ccattcctcc tgatcataag cccaaatcct gggttgcagc agagaaaatg taccacactc 360
atagacggcg aaggctggtc cgaaaacgca agaaagattt aacacagact gcttcaagca 420
ccgcaagggc catggaggaa ttgcnagacc aagagggctg ggatatgctt ctc 473

<210> 457
<211> 605
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

PA-0020 US

<223> Incyte ID No: 2651610T6

<220>
<221> unsure
<222> 7, 310, 314, 405
<223> a, t, c, g, or other

<400> 457
gaaagtntcc cttccaaatc acagctgtaa ctaaaatcca accattccag gaaatagaaa 60
tatcaacttg ggggcttcct gagaatgtca gattgtggat tgcaagagtc aaaaagagat 120
tttccagtcc aacctaccca ctggacagat gaggaaactg tggctgaagc gagggtgggt 180
gtctgggagt aggaaggggg tgtgggccct ggcggatggt gctggagcca ccttgcagcc 240
accacctggg caccccctgg ccctgccctg gtcctcccta tcatggctgc tgttggtact 300
ggctctctgn gccngttaga agtcatccag cacactctgg atgtattcga aggtcggccg 360
ctcctccgga cggtttttcc agcagcgcat catgatgttg taganctcct ctgggcagtt 420
ctctgggcga ggcatccggt atccacgctc cagagctcgg atcacttcag ggtttgacat 480
ccctgggtaa gggatccggc cgtaggtgac gatctccatc agcaggatac caaaggacca 540
gacgtctgac ttgatggtga aggagccaaa gttgatggct tcaggagctg tccacttgat 600
gggga 605

<210> 458
<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3558108T6

<220>
<221> unsure
<222> 133, 182-183, 374
<223> a, t, c, g, or other

<400> 458
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cattataaaa atgaggaaat aagctgtgat gttcagcatg tgtcagtttc taggaataca 120
gagaagggga ganctgcaag gtggagcgat tctgagggct gaaaatccct ttcccagtac 180
gnngacagca tccttcaatc ccgccagctc atgtgcatct gagggtgggg ctctgtcttc 240
atgctagaaa ccaaactgct ctcacagctt cctgctaaat caccacggct aacggataag 300
cagagacgga ctatccagtc tgactactgg gcactcaagt cgtcagtcca gtggctaccc 360
gggaacgggg gcanacagtg tgcgtgcacg tctacggggc 400

<210> 459
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3810351T6

<220>
<221> unsure
<222> 145, 266, 331, 352, 355-356, 376
<223> a, t, c, g, or other

<400> 459
ttaaaacaat gagaagtgtt attgtcatta tactgccatt ctataaactc actgatacaa 60
tctgcccggg attcctgttc tttggccaat cgaactctct tgatcatcgc ctcaatttca 120
tctctagcct gcatcacatc tctgntaatt cccaaaacct taatcaaagg tctcttatgg 180
tccagggaaa tgtaatattt aacttcttct gcagctcatt caactcctga tactcctttt 240
catcaaagtc tttgatgcac tcatcntcac tggtgtaagg acactgttct ttttcaatca 300
ggtcttgtag ccaggagata gcgtattcca nacacgtgac atttttacca gncanncgaa 360
aagttgctga ttctgngttc ttttccaaaa ccaaatgatt ctttttttgg ggagat 416

<210> 460
<211> 443
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2075438T6

<400> 460
gtccagcagg aaacccctta tagaaaaccc aaatcctcat cttggagttt ctccttcagc 60
cagggcagca cttgaaagag gttgatgtga aagtctcggg cgtgagcagg tacctgcttt 120
tgccgcttct ggtttttgca gacatccact actccccagc tgattacacc aacttgaatg 180
aaacgacttc tcttgtgaac tatcaagggg ccgccagaat cacctctgca agtattgggg 240
tcagcatagg gactcactcc tccagtacaa aggaaccgag gggtgaccac ctctgagatg 300
tccttgactt tgtcatagcc tggggcatat tgagcatctc tctcacagct gcctttctta 360
tccccattct tgatgtagac ctccttccga gtcagttttt ctcctcctca gacacaaaca 420
gagctttgat atcctgtgca ggg 443

<210> 461
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1929583F6

<220>
<221> unsure
<222> 215, 282, 297, 328, 357-358, 377, 380-382, 402, 410
<223> a, t, c, g, or other

<400> 461
gagacatgag cctccaactg tgtggttggg ctcggtagca catcgtggga cttgggtgtg 60
cgcccacaga tggtttggcc ctgcagtgac cagagcagcc caagccgcca ccatggtgaa 120
attgctagtg gccaaaatcc tgtgcatggt gggcgtgttc ttcttcatgc tgctcggctc 180
cctgctcccc gtgaagatca tcgagacaga ttttnagaag gcccatcgct cgaaaaagat 240
cctctctctc tgcaacacct ttggaggagg ggtgtttctg gncacgtgct tcaacgntct 300
gctgcccgct gtgagggaaa agctccanaa ggtcctgagc ctcggccaca tcagcannga 360
gtacccgctg gccgaanccn nnctcctgct gggctttctt cntgaccggn ttcctggagc 420
agtgatcctg 430

<210> 462
<211> 465
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1870501F6

<220>
<221> unsure
<222> 394
<223> a, t, c, g, or other

<400> 462
ttggagtgaa aggatttgtt aaagattcca taacaggatc tgggttagag aatgcaacca 60
tctcagtggc tggtattaat cataatatca caacaggcag atttggtgat ttctaccgat 120
tacttgttcc tggaacttac aaccttacag tagttttaac tgggtatatg ccattgactg 180
ttactaatgt agtggtgaaa gaaggaccag ccacagaggt ggatttttct cttaggccaa 240
ctgtaacttc agtaatccct gacacgacag aggctgtatc aactgctagc acagttgcta 300
tacctaatat tctttctgga acatcatcct cctaccagcc aattcagcca aaggactttc 360
accaccacca tttccctgat atggaaatct tctngagaag gtttgccaat gaatatccta 420
acattacccg gctttattcc ttggggaaat cagtagagtc aagag 465

<210> 463
<211> 531
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1873942T6

<220>
<221> unsure
<222> 53, 97, 329, 413
<223> a, t, c, g, or other

<400> 463
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ggggacgctg tacaggggggt ccgggaaggg ggctggnggc aggcagcagg tcagtgcacc 120
tgaggctggg ggtgcccgtg gcagagccct cctggtggct caggggggtgg gcccagcttc 180
tctgcctcct gctccactga ctggctcccg tacgcactgt cttccttcac ctctgtgctg 240
ggcagcttgt ctcgggtttc tggacccctc agcagcctca ctccctcctc taggcccatg 300
tcagacaggg cctccagtag acctgccang tccccgccag ccagctcgta gctgcgcagg 360
aggctgccac tgggtgaggt tgtctgtcgg tacgtgtcta ccaggctgcg cancccagac 420
gctctgccag ctctgcccag ctgccctggg cttctggccc gtctagcagc tgctccaggt 480
tctgcagagc tgtatcacca agtgacagtc ccggccctgc tgggctgggc g 531

<210> 464
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1865713F6

<220>
<221> unsure
<222> 16

<223> a, t, c, g, or other

<400> 464
aagatgtttg gcgtanagag ttaaatctca aataggctat taataaagtc tacaacatag 60
cagatctgtt ttgtggtttg gaatattaaa aaacttcatg taattttatt ttaaaatttc 120
atagctgtac ttcttgaata taaaaaatca tgccagtatt tttaaaggca ttagagtcaa 180
ctacacaaag caggcttgcc cagtacattt aaatttttg gcacttgcca ttccaaaata 240
ttatgcccca ccaaggctga gacagtgaat ttgggctgct gtagcctatt tttttagatt 300
gagaaatgtg tagctgcaaa aataatcatg aaccaatctg gatgcctcat tatgtcaacc 360
aggtccagat gtgctataat ctgtttttac gtatgtaggc ccagtcgtca tcagatgctt 420
gcggcaaaag gaaagctgtg tttatatgga agaaagtaag gtgcttggag tttacctggc 480
ttatttaata tgcttata 498

<210> 465
<211> 558
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1726703T6

<220>
<221> unsure
<222> 515, 536, 539, 554
<223> a, t, c, g, or other

<400> 465
ataagaacag ataatttaca attaacatta cagtatgtac attgcaataa atacatggtt 60
gtaaacagac aaacaagact gtattacagg taaggtcatt tggtgagaaa aaaaatgcat 120
ggcacaaaaa ataaataatg cattcaaaaa ttatcataaa gctttctgta aaatccattt 180
cattcaagtt ttttctttcc ttgtctgtaa tttgttctat ctacattatt gtgaatttta 240
actgatataa aacaaaatta aaacagcatt attgtgttca gtaacttgca agctgaaatg 300
cactggtttt atacaaactt ggacattttt ttccccatac agtacccaga tattgcattt 360
tcttatggca ttttaggaaa tgtaaagcca cttgtaaaag gatattcttt tattcttttt 420
taaagcagta tatatttctg aagcacactt tgggcaagag agaagggcaa ggataagccg 480
ttgtacagtg cattagtccc tggtctcttg gatantgagc cttttctggc aatttngant 540
ggtcccatta agtngggg 558

<210> 466
<211> 437
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1738538T6

<220>
<221> unsure
<222> 196, 206, 229-230, 239, 243, 252, 255, 265, 267, 299, 302, 306, 318,
346, 350, 391, 394, 422
<223> a, t, c, g, or other

<400> 466
cattttatta ttcccaaaga atcaagccca tcatgagtag cccacatggt tgctgttcaa 60

aggtactgaa aagggaggca tttggtcacc attacccatc aaggaactct ttacaaggat 120
aggttccaag tccttcgtgc tgctcttggt cattcagtga ctgcagtttt ggcccagaag 180
ccatccaaga tgagcnagtg ctgagncatc cttaactcat acctagatnn aacaacttnc 240
gcngaaacgc tngtnctccc cagtnanccc ttagcatcat attccaatac aggaaaggna 300
tnaggncagc tttcatgnga tacatggaaa ggcgctcttt gctttnatcn aaggggaagg 360
tttctagcgg tctgctttgt agtcaaactc ngcnagaatc acacggttgt agccggtcac 420
cngtggacat gatgtgt 437

<210> 467
<211> 276
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1742602H1

<400> 467
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gaagatggtc agtggcatgt acttgggaga gctggttcga ctgatcctag tcaagatggc 120
caaggagggc ctcttatttg aagggcggat caccccggag ctgctcaccc gagggaagtt 180
taacaccagt gatgtgtcag ccatcgaaaa gaataaggaa ggcctccaca atgccaaaga 240
aatccaacta atggtatata ttgtagggta cagaat 276

<210> 468
<211> 424
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1822751F6

<220>
<221> unsure
<222> 381, 386
<223> a, t, c, g, or other

<400> 468
cttcggcagg gtcagccttg cgggtgcttg tggagtgggt ggctatggca gccggagcct 60
ctacaacctg gggggctcca agaggatatc catcagcact agtggtggca gcttcaggaa 120
ccggtttggt gctggtgctg gaggcggcta tggctttgga ggtggtgccg gtagtggatt 180
tggtttcggc ggtggagctg gtggtggctt tgggctcggt ggcggactgg ctttggaggt 240
ggcttcggtg gccctggctt tcctgtctgc cctcctggag gtatccaaga ggtcactgtc 300
aaccagagtc tcctgactcc cctcaacctg caaatcgacc ccagcatcca gagggtgagg 360
accgaggagc gcgaacagat naagancctc aacaataagt ttgcctcctt catcgacaaa 420
gtgc 424

<210> 469
<211> 508
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1823789T6

<220>
<221> unsure
<222> 472
<223> a, t, c, g, or other

<400> 469
tatacacata gtaaaaatta aagccatgta tattatttaa aaatctaaag tgtttaaata 60
attctaccag ttgttttatc actggacaag aaatgtatta ggtttgatat ttacaaagat 120
gtttatgttg tctgctattt tctattatag gtttattcaa agagaatatc acctatagca 180
taaataatta aatttttcaa taaaaacaaa ctaaaaaaac cctagaaaca tttgacatca 240
ccaaattcaa cagctctcac tagaaatcca agcaataaac ttagatattt gaaataaaca 300
taaattatga ttatataact ctaagtcaca tacataattt tgaattatag taatagcact 360
gtaaacatga atacaaagga ttacagtttt atacagaatt ttttttgttt ttcttctttt 420
agggcttatt tctccttgga aagaacagaa tgatctttta aaaaataaga gntatatagt 480
aaatccagaa aaaaattcca atagctgt 508

<210> 470
<211> 448
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3214119F6

<220>
<221> unsure
<222> 181, 259, 374, 392, 417
<223> a, t, c, g, or other

<400> 470
gtgaggtccc aggccccaca cccatggaac tggaggccga gcagctgctt gagccacacg 60
tgcaagcgcc cagcctggag ccctcggtgt ccccacagga tgaaacagag ccacaggcag 120
ccttaagcct ggtccccata cacagcgctg aagtggcagt tccagcggct gtccctgcgg 180
nagaggctga ggccgaggtg acgctgcggg agctccagga agccctggag gaggaggtgc 240
tcacccggca gagcctganc cgggagatgg aggccatccg cacggacaac cagaacttcg 300
ccagtcaact acgcgaggca gaggctcgga accgggacct agaggcacac gtccggcagt 360
tgcaggagcg gatngagttg ctgcaggcag anggagccac aggtccctag gcctggncta 420
tcggaggcgc tttccctgct cctgttcg 448

<210> 471
<211> 422
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3230628T6

<220>
<221> unsure
<222> 42, 47, 58, 130, 288, 307, 317, 361, 405
<223> a, t, c, g, or other

<400> 471
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cattccatca cccctgtact tggtggtcta tcacagttgt gtgtactctt gacttgacta 120
ggtgtgagan gatcgtatgc catcttgtac tctttatcaa aagcatctat atcaatgttt 180
tctcttccca gtgccacaag tgagagaaat agtatttctc tgtataaact cctctgtctt 240
ttaaaatgtg gacacttatt cagtgtctct aaaatctgac tcattggncc atagacatca 300
ttcattntaa tgctttntac catacttttc aacagttcct ggttaaatga gttatcactt 360
ntttgcaata aatggaccat tggataattc tgggtgcgag cactncagag aatgcacaag 420
gg 422

<210> 472
<211> 257
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2697170T6

<400> 472
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tttttttta aaggaaactg taagttacac tgtggttaag acttgtatct tcacccttga 120
aaaagcccac attctatcac agtgatgtat ggtcagactt aacagcccca attgttaaac 180
acttggatca agtcataacc agttttattg caaaaggacc ctgtacacat ttatcaactc 240
tagtacctta atagcta 257

<210> 473
<211> 257
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2605603T6

<400> 473
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caaacgacac gaccaaactt ctaaagtatt ggtattacat cttaaaattg tcccgtatcc 120
ttaaaaaaaa aaaaagtgta cactcacgtg ccttacagga tattaaacca aaaagctaga 180
attaacaaac atgccaaatg ttttcacttt gaatcgtaga cacagctcct atatttgagt 240
tttacagaaa aggcatg 257

<210> 474
<211> 518
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2618045T6

<220>
<221> unsure
<222> 484, 496
<223> a, t, c, g, or other

<400> 474
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gctaaatcag agcgagctga taggaagggg tattctatgt ggtggtcttc ttaaagaatg 120
ttctcataaa tataggatgt tctgcagaca agaaataaaa ataaaacatg ctgaacaaga 180
taccaaaaat gggaaatgca gtagaaaatg agccccttc taccaatcta ctaagaatcc 240
caactcccct gggaagtttc agatgggatg tgagttcttt taatgaatgt ttatgatctg 300
atgctaagac tttctaaaat taaaattcca cagtactagg ccattttata aactaaaacc 360
aagggcagtt gagtctccaa tataatccct ctagaatttt ttaagttaaa gtggacaata 420
tttgaaagta ctaattttat ctgaagctgt ggtgcttgaa aggacaatcc ctccatttgt 480
ggcncttctc cctaanccca tgttattaaa ataaatga 518

<210> 475
<211> 576
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2633001F6

<400> 475
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acgcggtgct gctgccgccg ctttcgggtt tggcccctca gaacccctcc ttttctgagc 180
gcttccctct taggcctcag ggcagtttga tctgtgggga gaaagagcag ccatcgctga 240
gcctgccttt taaaatatat gtgtatttcc ttagccccac tctaagaaat ctatgttcct 300
gagtttgccc tctgccctcc cactccttcc ccttctcccc tctaaacctt ctcccatctc 360
tttcaaaatc ttttcccaga aaggcaggct tcaaccagcc acttccagct ttgtgtcttc 420
tctcaattac atagcaattt ctccttccca ccatcatggg gaagctggct ctgcttttgc 480
cctttgtcat caccaacaca acagatagaa attaaatata agtataatgg gtgtgcgtgt 540
gtatgtatgt ggtatgtata tgcatgcatg tgtata 576

<210> 476
<211> 568
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2506614T6

<400> 476
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aagatgcaaa gagctaaaag tggtatcatg attccacagc agtgattgta agacagtgag 120
ccacagggaa atgggaaaac gtgaaaagaa acaagtatca ggaccaaatt agagaagata 180
tgagtagggc catcactaga ggtgaaaatg gagaaaccta agaaaaccag tgttggcatg 240
aattatgcaa gtggaaaata catctgtaga gggacgagat agaaggacct agatctaact 300
ccaagtgctt gattggagaa gagagggaga aagagaattt atagaattaa ctgtatagaa 360
gcctaaaaaa taagattatc agcctagtca tgtaaagtct agaagttcct ttatttgctc 420
atcacctttc ctttttctat aagactatta agcagaaggt cagtaacaga aaatttaccc 480
tttcctctcc tctcttggtt taaatttttat aaggaatctg aagaggctat ggatcagttg 540
gcttacagtg ggaagagctt attgaagc 568

<210> 477
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2972510T6

<220>
<221> unsure
<222> 432, 469
<223> a, t, c, g, or other

<400> 477
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tacttttaaa aaatggtaag aagtaaaaga tgctttaaaa gctatccatc tcagttctta 120
aatggcatct aaaccttaga agtcaaatgt tacagcaaat atttgtaaaa gcaactgtaa 180
ataaaaccga acgcaaccac agcataatat aaccatgtag ccatagatat atgataaata 240
taaacaacag cttaatatta ggaccattag tcacagtggc aaaagttctt agatattgaa 300
aagaagatgt gttaggtcaa ctgctaagat ggtccacagt gatccctgcc tcctgatatt 360
cacaatctat catcaagata gcaggccatc ccaggacagc agtcaaggga aaatagttga 420
tgaccaactg gngcatcaga gctcaccatc ttggtcttca gctgttttnc ctggactgag 480
gtggtcactc ccatggagct ggtg 504

<210> 478
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2205246T6

<220>
<221> unsure
<222> 138, 152, 158, 175, 185, 213, 223, 243, 258, 266, 288, 299, 306, 308,
316, 320-321, 328, 335-336, 343, 346, 371, 381, 392, 407, 420
<223> a, t, c, g, or other

<400> 478
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tttaaattct gcactcaaat acatatactt tacataaata tgatcttctc agagttataa 120
acaaagttta gaaatatngt aaaatctcta gnattatnag aggtaattta gaggnaaagt 180
ggccngcctg ttcagtaact gatatttcag canaaggtca tancttcttc tattgattca 240
tanagtgggg ttagcccntg gatagncatt tgtactaaca tacactgntt acattcatnc 300
tacagnanca tatgtnagan nccagagnat aatcnnaatc ttncancctc tgcatacact 360
cctatttggg nacttagcat nccactgcat tnactcttga tgaagtngtt ttcccaacgn 420
gattttaaag 430

<210> 479
<211> 230
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1902366T6

<220>
<221> unsure

<222> 52, 113, 130, 195, 216, 223
<223> a, t, c, g, or other

<400> 479
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aggtcattcc caaatccaac agccgcagga ggcaggaggc agggaggaga cancacagcc 120
cccaccacan tttctgcaca caatgaggcc tgctgggaga agagaacatg aatgggaagc 180
tacagaagta ttganggaca gaagaacagg aaaatnggca ggngaggaaa 230

<210> 480
<211> 548
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1686561T6

<220>
<221> unsure
<222> 383, 400, 450, 486
<223> a, t, c, g, or other

<400> 480
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taggagagtg tttgtagtca tttccatttg ctgccacatc ccttacatta tctacttgct 120
aagcactgag aggcccagaa tggacacatc aaactgtcag gaggaacata tgggacactg 180
gcacctgcaa tggttttttt aaaagcagag aatgcagagc agtcacagac tccacttcaa 240
agccagggtg tgtggaggtc tccggggaag agctctgcac aacaggtttc ctgggggcca 300
gagggcctct cggggaggaa cagaaaaaaa ccagccagga gtgctaccga ccagcctcag 360
ccagaatgct gtcagaacaa ggncccaaac atggcctggn ctcagtgatc tggggatgaa 420
cggtgtcaca agggaaccac ctgaaaggtn ggcagaggcc cccgtggagg agccacatac 480
tcttcntctc tcagcagccg cagcaggatg ttttttttat cttgggccag ctgtagacat 540
gagtgttc 548

<210> 481
<211> 505
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1846209T6

<400> 481
cttaagagta tacttggaac cctcggagtc ctccatggac aagaacaggg tggcccatgg 60
acttccagcc aaaggctcca ctgtggggct gctttgggga gagactcaca gctggacttc 120
tctatccgac catgcaatgt tagccagcac caattaccca caatgctttg cccataagag 180
atagaaataa tggaactcac aggaagaaac agtattgata acatacacag gcttacagag 240
gccaggccca gtaattacca tgagacagaa gcctacaggt ggcggtgctt tgactgggct 300
gggattattg atacattact gatacatcac ttcttttata agcatatgta aaacgagtgc 360
tactgaaagt cgaaggacag cttccggggg agtcatgaac tctttcacta tctcatccgt 420
gacctccttg cgccgggcct ggtgctctgc gatcaagggc tgcagaacct ctatgagtgc 480
ctttcttgag ctcacccggt gaagc 505

<210> 482

<211> 533
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2472702T6

<400> 482
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gctttgctct tccaggcctg cacatgctgc gtgatgaaat gaggcctgcc tagacatctg 120
tgagggcctc gagggctgct gcctcgactt tctccctagc taagtccacc cgtccaggga 180
cacagccagg gcactgctct gtgctgactt ccactgcagc caagggtcaa aatgaagcat 240
ctgcggaggc caggactcct tggcatcgga cacagtcagg ggaaaagcca ccctgactct 300
gcaggacaga gggtctaggg tcatttggca ggagaacact ggtgtgccaa gggaagcgag 360
catgatttct ggagtggact acatgcatgg tctggagttc agtaaactgg aaagtttcac 420
ccccaagtct taatttaatc aaaattgctg aactctgttc aatcttcatt gttaaaagca 480
gctttaaagc tgggtgattt cttagtcaaa tgtataacga agcttttact tat 533

<210> 483
<211> 361
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2746232T6

<220>
<221> unsure
<222> 275
<223> a, t, c, g, or other

<400> 483
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taaatgggtc aaaaatgtca aaaaaaatcc catattctct tctggggaaa ctcagaaaga 120
tttcaagtat gagtgttaag aattagaaaa gactatcata agctttaaca ttctaaataa 180
taagtaattg aattatttca gtttagttac acagcatctt ttaaagtcca tctttgcaaa 240
ttatacgttg ctataaatac attgtgtatt tggcnttatg tgaatttgtt taatccagtg 300
tcaattgtct aatggtctaa agtgtcccat tgaagttata atctggatga actgaacaat 360
a 361

<210> 484
<211> 582
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 452968T6

<220>
<221> unsure
<222> 417, 484
<223> a, t, c, g, or other

<400> 484
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aagatcaaag caaactgtga tccatgtaca tggatgaaaa ctaaaggctc gagttaatca 120
cattgtagtt tttaaatttc tacagcctag agctcactag tcacaggtct tttaggtcct 180
tctggatgtc ccacagggta tctgcacttt tcttgagctg agcaacctca tcatccttta 240
gcttctggtt gataacgctg gttaatcccc gggcattgag gatacatgga aggctcagga 300
agacttcatt ctcaatgcca tacatccccc tttaccattg ttgacacggg atgaatcctg 360
gatagatttt tcaacatgga ttcaataaga tcagccacac ttaatccaat agcccanttg 420
gtatatcctt ttagcttgat gacttcatag gcactttcaa ccaccatctt atgcacttcc 480
ttcnaatttt cactatcatt gtcagttccc atttctggat tcaattcctg gagagaaaca 540
cctgccacat tcacaccact ccacacagcc acacttgagt gc 582

<210> 485
<211> 470
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1491088T6

<220>
<221> unsure
<222> 9
<223> a, t, c, g, or other

<400> 485
gcacaacang ggaactttgt ggggtgtctg tggcttgcta cagtgacatc tggcaggact 60
aactgggtca tcagagccac agaataagga ctgggaaggt ggccacaact gcaaggactg 120
gggccatgtg gggggaggac tctgagactg accacttggc tggtaacttg gctgtccagt 180
gtatgggaat ctcagtgagt tcctggcctg aagtcagact ctgtctctga cgcagacgtg 240
agaggtcgga gtggcaggaa ctgctcagct gctcatccgg gaacttgtcc tccaaggggc 300
tttgccattt gttttcttcc tgtacttgcc ggccccatca taatctccac caatcccgat 360
gaacttggat ccaatgacag ccttgatgtg gtcgaagtga tctgccacag tggacacatt 420
ggctgatggg ttgcactgta ttactcccat gatgtctgat acagacaatt 470

<210> 486
<211> 242
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1294238H1

<400> 486
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aataacaaag tctacgccgc aaaaattatc cctcacagca gagtagctaa acctcatcaa 120
agggaaaaga ttgacaaaga aatagagctt cacagaattc ttcatcataa gcatgtagtg 180
cagttttacc actacttcga ggacaaagaa aacatttaca ttctcttgga atactgcagt 240
ag 242

<210> 487
<211> 431
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 884512T6

<400> 487
caacatctaa atttgcatca atttgataca tcgttgctca ttttgcagaa cataacagtt 60
gcacattgca agagtcaact tgcttcgggt cttttcatgc tcatggcggt ccacccctgc 120
cttccctctc cctgacctgc atcctgtcct ccacagtctg ccctgcctcc tgtcgccaca 180
ggttgaagac ccaagccctg aggagaacct gctgccaggg ggctggctgg ctgcgagcca 240
ggagggccag gcagttagcc ctgccacagg gaggggcagg caagggatcg tttctcctct 300
tcctgggctg agcccatgcc aggccagcca cagagtgccc tagtcagccc atgtggctcc 360
aggaagcctg ctgttgttct tctccatccc atttcacccg cagctagtgg ctaaactctg 420
gatactctga g 431

<210> 488
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 933140T6

<220>
<221> unsure
<222> 303, 318, 344, 403
<223> a, t, c, g, or other

<400> 488
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gagctcttcc cttttccccc gttaatttcc agtataatgt agcagcacaa ttatttcatg 120
tcacatttaa gaagaacaag aaccaattta tataaagtac aattgtatat ccttaaacat 180
tccacataaa cacactgtca aaactcactg gatatgctgg aattggagga cttaaatttc 240
tacatattat ttattgcacc cagagtactg gttaaaatgc actttctgtg aagatcaaat 300
gcnataacgt atgagggnat ttttaacact gtgaagtaca cacntaatat tataaaatgc 360
catttaattg gaaggagttt ctatcattgc aagtcataaa tgnaactttt taaagatact 420
agcagctttt acct 434

<210> 489
<211> 491
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1557811T6

<220>
<221> unsure
<222> 436, 442
<223> a, t, c, g, or other

<400> 489
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tgttatggtt acagaaagaa aataaatatt tgtgcacaca gagatagcat gaaatcattc 120
tacagtgaaa ataatagcct ctggaaaaag ctttgaaaat cagagatggt gccatcacca 180

gacaacacaa gtgctggggt acagggcagc cctccatgca tctcatagca tttgcatggt 240
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cacaacccga gagcacattg ttatttgttt attttgtaca agtgatgtca taagcaagga 360
ttttgcctgt gttctagatt atctccaata aataaataac tatgtacaaa tattttgagt 420
ttacaaaata gaaganggaa ancttttgtct taccaaagtt acatttctat gatacattta 480
tttccataca c 491

<210> 490
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1747645T6

<220>
<221> unsure
<222> 451, 472
<223> a, t, c, g, or other

<400> 490
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actgcttcgt cctcccatgg aacctgagcc tgacgtgaag gagtcagacg tgtgacagag 120
gaagagtctg agaagagaag acacctttac agaatgtaca gcgagagagc cggcctggcc 180
cccgggttac agtaagatgc acgggtcctt tcagtctcac ggactccaga cggccacgca 240
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gcctgccttt ggctgctctt tagctgcttt tggctcaagg acgccgtctc tgggcggctg 360
gacggcaccc ccgcgccact caggtcctcg tcctcctgcg cctgctgctc ggccttggct 420
cggtgcatct ggagaagccg cagctgcacg ngcagtcgat gatggcctcg antcctcatg 480
aattgttgat tcaaatga 498

<210> 491
<211> 357
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1862007F6

<220>
<221> unsure
<222> 294
<223> a, t, c, g, or other

<400> 491
gcttagcaga cttgcgctgc accagcgaat ctgcctgggc tgctcctgtc ccacccaccc 60
tcactaagat ccatgtaagg ggctcctctt cccacctgga acttgtgagt ggggacccat 120
gatgtatggg tctcacctga cttgaggtga attttggagt gaagggccct gaggtcagct 180
cccaggtcgg tcgtgctggg ccaggcctgg ttttcacagg ggctgaagga tcccagtcca 240
cctgtgtgca tgtcagggct cggccgggaa gaagccagca aagtcccccg tgtnccttgc 300
tgagtattct gtcacagaca agctccatta aagccacagc agtgctaacc aacaaca 357

<210> 492
<211> 403

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1968661R6

<220>
<221> unsure
<222> 128
<223> a, t, c, g, or other

<400> 492
atcaattaat tcaataattg acccttgggt ctttgccatc cttaggcctc ctgttctgag 60
actaatgcgt tcagtcctct gttgtcggat ttcattaaga acacaagatg caacacaaac 120
ttcctgtnct acacagtcag atgccagtaa acaggctgac ctttgaggtc agtagtttaa 180
aagttcttag ttatatagca tctggaagat cattttgaaa ttgttccctg gagaaatgaa 240
aacagtgtgt aaacaaaatg aagctgccct aataaaaagg agtatacaaa catttaagct 300
gtggtcaagg ctacagatgt gctgacaagg cacttcatgt aaagtgtcag aaggagctac 360
aaaacctacc ctcaatgagc atggtacttg ggcctttgga gga 403

<210> 493
<211> 660
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2207534T6

<400> 493
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acttcagtaa gaaaatacaa cagagtgcca tcaggacagg ggagagggca ggagactgct 120
ccatcgctct gctcatgtcc acactgccaa ggtccccacc acgggggtcc ccagtgcacc 180
ccagctccgg ggcagaagag gcagcctgca gatctctgct gccgggaaag agctcctgaa 240
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gactgcaggg agaggcgtct ccagtgggca gccttgggtc acttccatag ctcccccagc 360
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gcttcgatgc ttttggaagc atccaccatc ttccagttca aagtcgtgtc tttcatgagc 480
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acgctccccg cttggcagca tccgccagct gtaactggag gaacaggacc aggtcgggtt 600
tgggaaaggc ccacgtctgg ctgtttacac caatctaggg aaaaattctg ccaagaaaga 660

<210> 494
<211> 249
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2326622T6

<400> 494
taatgtttat tttaaatcta attgaaattt atctgaaaca acttatttca agtaacttat 60
tgtacagtcc attgtccatt taaaaatatt ttcttccaaa aaactgcatt gaaagacaaa 120
aaaattcttt tatacggcat atacgcgaga tgcaaacttc tgatgtaaat ttgtttcact 180

gtcaactccg atgataaaga tgagaggcac aagggttcac agttcagtta aatgatgcaa 240
acaaaaagc 249

<210> 495
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2452694T6

<220>
<221> unsure
<222> 37, 123, 139
<223> a, t, c, g, or other

<400> 495
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ctgctccccg cactgaggac tcggcctgga ctgcagtgcc tccaaatcaa cacgcagcaa 120
gangggagtg cagggaggnc cctgaacacc aagcctctga aaggctaagg gacacagctc 180
cagctgtccc aggaaaacca gcaataataa aagtgaggca cggccccacc cacacatatc 240
atctagtcac ccatcttcac tctggaggtc tgaagaattg cgacgatgac cccaaagagg 300
ccaatggcgc tgccaaagat ctccacgatg agaatcttta caaagaggct ggggttctga 360
gcatcggcca gggcagcccc actgcccacg atgcccacgc agactccaca gaagaggtta 420
gacaggccta cggtgaggcc agccccaaac atggagtagc ctgcatggta gttccgatgg 480
ccgatggctt gggg 494

<210> 496
<211> 199
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3441613F6

<400> 496
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gaataatttg gtgtgcattc tttcagactt tttcctatac attttatatg tagaaatgta 120
gcaatgtatt tgtatagatg tgatcattcc tatattgtta ttgatttttt tcacttaata 180
aaaattcacc ttattcctt 199

<210> 497
<211> 500
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3518439T6

<220>
<221> unsure
<222> 297, 348, 350, 352
<223> a, t, c, g, or other

<400> 497
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gataattttc actccaaaaa tatttaagta ccaaatcaaa acactggttt ttaatggtgg 120
tttatagcat agtaaggtat tttacacaaa atatatttta aaactacaca atttctcctt 180
ttaagtgagc tcccttgtgc aagctgctga agtgtacagc agcagggcaa tgggcgtcta 240
taggaggtgg ctctgctctg ttctggggtt ggtccaaagt caggtggagt tccattntat 300
gaaaagcttg aaaaatctac cttaaggaga ctgaatatca ataccagnan cntctagagt 360
tcttgttgaa ttttcacaga aatactggaa ccctcaaaat cagatagtaa tttcaaacaa 420
cattaatttc agatgatccc ttttatttag aggccctgca tctgttttga tcaagtcaca 480
tagccttaca ccaacttatc 500

<210> 498
<211> 451
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3876090T6

<220>
<221> unsure
<222> 18, 423, 433
<223> a, t, c, g, or other

<400> 498
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gggaaaggga aaaaattggc agagaaagtc tagactctct ggcctaccat ggagcctagg 180
cccaggcccc caagatccca ccttccccaa cccccatggg actggagatt tttgtagctt 240
ccattggacc atgaggggca tgatgggagg cctgagttag ggtgaccttt tttgtgagcg 300
tctcatttga attttatctt cactgggtca tagatgtagc agcccacatc gccaatgttc 360
acacctttgg ggccaaacag gtagccgtag caggggacgt ggcagtaggg gactccatca 420
tgntcagcat gantcccagc agtcagggtc t 451

<210> 499
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 452336T7

<400> 499
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aaaaacaaca ggaacaaaag taaactcatt tgattctctc aaaaaacaag ctgtaactta 120
cctttgcaaa taattaagtt ctctcacttt aaatatcgta attcactggt cttcataata 180
aataattata ataatatata aaaggagaca gtggcctgaa ttattttgca gagaacattt 240
cacacatctt ttaaaaaaat cactaaacta ccacaactta aaacttgtaa gaataattag 300
gtaagagtta ttgtaatatt gaattaatat agcacctaga aatttgaaat ttgtaatatt 360
tcagatgata tgatttactg agaaaaagag taatgatttt cttcagtgaa ttttcagggg 420
ttttcaacat aggtctcttt taaaaggggt taaaaaattt atgcatacta g 471

<210> 500
<211> 347

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 961630T6

<400> 500
agagtttaag atcccatttt ttaaaaagta caatacagtt gatttttaa aatgaggttc 60
tacaaacact tttggacagt ctaacataca tataagctgt ccctttcaac taggatatgg 120
ggaaaagaag tcaacccagt gtttccactt tccatgaagg acttctcaag ggcaaggtaa 180
taagcaggaa taaagcttcc aaaaacctgg aaggactctt tcaggtggac taataagcat 240
catcatcacc tgccttaaac tacagtaaag ccaagattgt taataatata gttccttgct 300
tttagctagt atagaaaata aaattgaatc acattgttga tggtaat 347

<210> 501
<211> 209
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 041795H1

<400> 501
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gagcagactt ctttacaaat gggatctgtt tctatatgtg tatatgccca cttaccattc 120
agagagactg gtctttctct ttgtcttcct tcacattgct gtgtcagttc tacacctagt 180
cttttcagca cttagcaaat tcaaatttt 209

<210> 502
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1406908T6

<220>
<221> unsure
<222> 486
<223> a, t, c, g, or other

<400> 502
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aaaaacaaca cgcaccccat caggaattac accaaacccc ttttcctttt tattcattca 120
aaagagagtc caatacacaa gtgtcaaata tgagcactgt catttttttt ttcttagaag 180
ggggaaaaac atttattttg gcagtgcttt gacaattcca ggaagtggtt ttgatactac 240
aagttgcagg aatagaaacc ctaacaaact tggagggcat ttgtttgaga ggcaagggac 300
gccttgctta gaaaacattc ctcttgtgct tagtgaatca cctatcgcct cggtgggctg 360
ctgtgtcttt ccaggtgctg aaagagaaaa cggaatttct tgcatagaca gctgaagagt 420
cctgtagagc agagtgattt ttgtatctcc aaccctcctc cccaacttga aacaaattct 480
caagcntctc tggagcatct tttggtcaca tga 513

<210> 503

<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1430933F6

<220>
<221> unsure
<222> 245, 389
<223> a, t, c, g, or other

<400> 503
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actccctgct gttcgacccc ctgtcctcct ccagcagcaa caaggagcgg gtggtcactg 120
tgattgctca tgagctggcc caccagtggt tcgggaacct ggtgaccata gagtggtgga 180
atgacctgtg gctgaacgag ggcttcgcct cctacgtgga gtacctgggt gctgactatg 240
cgganccacc tggaacttga aagacctcat ggtgctgaat gatgtgtacc gcgtgatggc 300
agtggatgca ctggcctcct cccaaccgct gtccacaacc gcctcggaga tcaacacgcc 360
ggccccagat cagtgagctg tttgacgcna tctcctaaca gcaaaggcgc ctcagtctca 420
ggatgtctcc 430

<210> 504
<211> 195
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1468353F6

<220>
<221> unsure
<222> 63, 124, 148, 164
<223> a, t, c, g, or other

<400> 504
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gancttgcat gaggaggagc atgtcctgct catggccatc tgcatcgtct cccccagatc 120
gtcntggggt gcaggacgcc gcgctgantg aagccatcca ggancgcctg tccaacacat 180
gcagacgtac aatcc 195

<210> 505
<211> 235
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1500367F6

<220>
<221> unsure
<222> 52, 75, 97, 102, 119, 138, 141, 223
<223> a, t, c, g, or other

<400> 505
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ggctgggggga acgangggaa ggaaggagac tgctgtntcc angctgaggt cagggtggng 120
ttggcaagag cgcaaaantc nagggaagcc aggctggagc tgctgtgtat agactgccaa 180
atgtgaagta tttatattgt attcactaaa ctatacttaa gantgttcaa acaaa 235

<210> 506
<211> 203
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1561504H1

<400> 506
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gcttccctgt taaagctcta cctccgagac ctcccagagc ccgtggttcc ctggagccaa 120
tacgaagggt tcctgctctg tgggcagctc acgaatgcgg atgaggcaaa ggctcagcag 180
gagttgatga agcagctctc cat 203

<210> 507
<211> 132
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1709659T6

<400> 507
agatggaggt tactgaggaa ttaggtagcc gggtggctta ccccaggcat gtctgtgtag 60
gtaacatttg agaaaagaaa aaaaaaatca ggaggtcagg gaaagaatgt aaaggcattt 120
gtgagctctg ag 132

<210> 508
<211> 425
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1817550T6

<220>
<221> unsure
<222> 140, 153, 247, 419
<223> a, t, c, g, or other

<400> 508
cacaaagttc tgttcttctt cctggcagct tcggacgaaa ttacacaggc atctcccatg 60
cccaccaccc gttaggaatg tccattcctg ggctgcgtgc gcaggtccag cagccagtct 120
gtgcaggctc ctggtccggn cagggagatt gangcagacc cccacaagcc ctgaacccca 180
gtctcaagtt ttctgcacga cctgtacttc agtcaccaga cactcctcca ggccggcttt 240
gcccgcntcc cagaccacca gcttgtcgtt ttggaagctg tcaccgatgg ggtctttcat 300
gtgagggatg cggggaaaga gtctctgcat caccagatac cttctgcaga tcacgaagac 360

acagaccagg gccagcagcg tccccagcgc gatcagcagc gacgtccgcc aggcacgtnt 420
gtttg 425

<210> 509
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1852712T6

<400> 509
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gcgatgcccg ctacactcca tggcctgctg cacatgtgac aggacagtta tttcatctat 120
gcttacacct gcaggtccct taccctagaa acactctata tcttcttagg tacttccctt 180
gaaacaggat gagttctaga ggaaataaaa ctgctgcact tacaaaccta gaaatattca 240
gggaccaaga ttagttgttc agtgacctag gaaaccttag aatcctgtag gttcctcagg 300
agaggtgctt ccaagtactt gagaatccac aggcagagat gcttcccttt ccatggtgga 360
tgtgtatgtc actccaggac aaactgcgga gtcacggagt gtgggaacac atctggttgt 420
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agtcccaaag tcaga 495

<210> 510
<211> 106
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1861724T6

<400> 510
agggccagat tgcactgtgc tatataaaga ggttaaaggt gagaaaagtc aacctgaaat 60
gatgtttcct gcaattatta accgatattt aaaaatactg gcctga 106

<210> 511
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2449112T6

<400> 511
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gagggtacag ggcggccccc agcaaggccg ttcattgtcc atcgagagct tctgctcatc 120
tggccctgga gctgggcttc cctgagatca gccccagggc actgggcgac aggtgccatg 180
ccaggcctag ggcggggttg gcatgagggg caggggctgg gaggtgctca ggcagcctgg 240
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gaggggagga cactggtgcc tcgggctcca ggaatggagg ccctgcacca gccgctggga 360
tggacacatg tgggcacctt gcatcggggc cgggtgactt caagggctgg ggactatttg 420
ctgttttctg tgaaccactg gagcaccacc tccttgttct ccttcaccca cttgatgttg 480
gctttcgtct tctc 494

<210> 512
<211> 502
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2769161T6

<400> 512
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catctggtcc ctgacaggac actccccgtc caggatgcaa agccaaaggc ccggaacagc 120
ctgctcagtg gctgagccct gtggccagct gtgccctgtc tcttcccctg cccccagtca 180
gggcatccaa cggggcagag gcagaaggga cgtgaaaagg ggggtcggtt tcagcaaagc 240
cttcacccag ggacctgaag gaagaaggag tattgtgatg gggtccaggt gccccaagat 300
gctcagggcg cctgggctga cttcaggatg tgtccatgtg gttatcagag gaaagcgatg 360
gggcctgccc tgcccacgtg gagagggagg gagaggggaa acacggctca gaaggagaat 420
cactggccag cgaccataca ggtgggattt gggaccctga ctccgccgcc agggccgggt 480
ccacacccca ctcctggctg gg 502

<210> 513
<211> 320
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2855766T6

<400> 513
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aaaatggact tatctctatt atacagagtt ataatataaa aatgatttaa aggctatatt 120
tttcagcatg taggtagcta cactgtaatc ctgttgaaga aactttccta tttaagctta 180
taggatgaaa atatataatt aaagtcttct gatcatagct tgagaccatc aagggaatgt 240
ttagtttcct ccacaaagag ccaccaggat tttctcataa tctcctttgg tttcatccag 300
gatggcttgc aaagggagat 320

<210> 514
<211> 107
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3034487T6

<220>
<221> unsure
<222> 36
<223> a, t, c, g, or other

<400> 514
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ccagacacta cttttaaaaa cccggtagtc acacataaac agcatga 107

<210> 515

PA-0020 US

<211> 304
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 3334413F7

<400> 515
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ccatggcgcg gtccaccccc agccaggaac tgctccgggc cacccagctc catcagtatg 180
tggagggctt tctgttgcat gggctcttgc cagctcatgt cattcggttg ctgcttaagc 240
ctcatgtcca ggcccagcag gacttgcagc tgttgctgga gctgctggag aagatgggat 300
ctgt 304

<210> 516
<211> 452
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1266985T7

<220>
<221> unsure
<222> 442
<223> a, t, c, g, or other

<400> 516
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taaatacgtg aaggtgcaca ttacatcagc acagattcac aaaacacctc gccttggcaa 120
gaaaactgta gctaggcagc tcccgtcctc agggactcct gccacagacg tcatggagac 180
agcatgagcc tccccagaac agtccccacg gcctagactc cccagagcag gaggagcagc 240
ccaggctctg ttgcgagaca gccatcactt cctgttcttt gcaggtgcct aaggtaggtt 300
acctggccaa ggttttggtg gaaaaaatga gttttttcaa tgttgcaggt cttttaatag 360
ttcatctgta ggaagtgcat ttgcaaagtc accaacctgc agcttccatc tgtagaccag 420
gaagggtgat tctctgggtg ancacagcgg gg 452